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Service Manual

ORDER NO.
ARP3321

PLASMA DISPLAY SYSTEM

PDP-506HDG
PDP-436HDG

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
PDP-506HDG	—	AC110 - 240V	
PDP-436HDG	—	AC110 - 240V	

● PDP-506HDG is combination of the following components.

Component	System	Service Manual	Remarks
PLASMA DISPLAY SYSTEM	PDP-506HDG	ARP3321	This manual.
PLASMA DISPLAY	PDP-506PG/TLDPFT	ARP3309 (ARP3267)	
MEDIA RECEIVER	PDP-R06G/TLDFXJ	ARP3281	
SPEAKER SYSTEM	PDP-S38/XIN/E5	RRV3221	

● PDP-436HDG is combination of the following components.

Component	System	Service Manual	Remarks
PLASMA DISPLAY SYSTEM	PDP-436HDG	ARP3321	This manual.
PLASMA DISPLAY	PDP-436PG/TLDPFT	ARP3308 (ARP3271, ARP3272)	

PIONEER CORPORATION 4-1, Meguro 1-chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS (USA) INC. P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A.
PIONEER EUROPE NV Haven 1087, Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 253 Alexandra Road, #04-01, Singapore 159936
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Service Manual

ORDER NO.
ARP3309

PLASMA DISPLAY

PDP-506PE
PDP-506PG
PRO-506PU

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
PDP-506PE	WYVIXK	AC220 - 240V	
PDP-506PG	TLDPFT	AC110 - 240V	
PRO-506PU	KUCXC	AC120V	

● This service manual should be used together with the following manual(s):

Model No.	Order No.	Remarks
PDP-506PE/WYVI	ARP3267	SAFETY INFORMATION, EXPLODED VIEWS AND PARTS LIST, BLOCK DIAGRAM, PCB PARTS LIST, ADJUSTMENT, IC INFORMATION etc.

PIONEER CORPORATION 4-1, Meguro 1-chome, Meguro-ku, Tokyo 153-8654, Japan
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1. CONTRAST OF MISCELLANEOUS PARTS

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent to ▼ mark on product are used for disassembly.*
- *Reference Nos. indicate the pages and Nos. in the service manual for the base model.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 → 56 x 10^1 → 561 ..... RD1/4PU 5 6 1 J
47k → 47 x 10^3 → 473 ..... RD1/4PU 4 7 3 J
0.5 → R50 ..... RN2H R 5 0 K
1 → 1R0 ..... RS1P 1 R 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k → 562 x 10^1 → 5621 ..... RN1/4PC 5 6 2 1 F

■ CONTRAST TABLE

PDP-506PE/WYVIXK, PDP-506PG/TLDPFT, PRO-506PU/KUCXC and PDP-506PE/WYVI are constructed the same except for the following :

Ref. No.	Mark	Symbol and Description	Part No.				Remarks
			PDP-506PE WYVI	PDP-506PE WYVIXK	PDP-506PG TLDPFT	PRO-506PU KUCXC	
		PCB ASSY					
P17 - 1	NSP	50 X DRIVE ASSY	AWV2257	AWV2257	AWV2209	AWV2209	
		└ 50 X DRIVE ASSY	AWW1075	AWW1075	AWW1020	AWW1020	
P17 - 4		50 Y DRIVE ASSY	AWV2258	AWV2258	AWV2210	AWV2210	
		PACKING					
P9 - 1	⚠	Power Cord	ADG1214	ADG1214	Not used	ADG1215	
P9 - 4		Polyethlene Bag-S	AHG1338	AHG1326	ADG1338	AHG1348	
P9 - 5	NSP	Catalogue Bag	AHG1340	Not used	Not used	AHG1347	
P9 - 6	NSP	Warranty card	ARY1114	ARY1114	Not used	ARY1123	
P9 - 7		Ferrite Core	ATX1039	ATX-1039	ATX-1039	Not used	
P9 - 8		Pad (50T-L)	AHA2427	AHA2451	AHA2427	AHA2459	
P9 - 9		Pad (50T-R)	AHA2428	AHA2452	AHA2428	AHA2460	
P9 - 10		Pad (50B-L)	AHA2429	AHA2453	AHA2429	AHA2461	
P9 - 11		Pad (50B-R)	AHA2430	AHA2454	AHA2430	AHA2462	
P9 - 12		Power Cord Case	AHC1073	AHC1067	AHC1073	Not used	
P9 - 13		Under Carton (50)	AHD3344	Not used	AHD3344	Not used	
P9 - 13		Under Carton (506)	Not used	AHD3371	Not used	Not used	
P9 - 13		Under Carton (506PU)	Not used	Not used	Not used	AHD3379	
P9 - 14		Upper Carton (506PE)	AHD3345	AHD3372	Not used	Not used	
P9 - 14		Upper Carton (506PG)	Not used	Not used	AHD3420	Not used	
P9 - 14		Upper Carton (506EL)	Not used	Not used	Not used	AHD3381	
P9 - 15		Mirror Mat	AHG1284	AHG1327	AHG1284	AHG1352	
P9 - 16		Caution Card	ARM1232	ARM1232	ARM1232	ARM1239	
		REAR SECTION					
P11 - 6	NSP	Name Label (50PE)	AAL2661	AAL2675	Not used	Not used	
P11 - 6	NSP	Name Label (506PG)	Not used	Not used	AAL2711	Not used	
P11 - 6	NSP	Name Label (506EL)	Not used	Not used	Not used	AAL2677	
P11 - 7		Bolt Caution Label	AAX3117	AAX3005	AAX3117	AAX3075	
P11 - 8		AC Label PE	AAX3194	AAX3194	Not used	Not used	
		FRONT SECTION					
P13 - 1		Front Case Assy (506PE)	AMB2861	AMB2861	AMB2861	Not used	
P13 - 1		Front Case Assy (506EL)	Not used	Not used	Not used	AMB2857	
P13 - 3		Badge	AAM1098	AAM1098	AAM1098	Not used	
P13 - 3		Elite Badge	Not used	Not used	Not used	AAM1102	
		CHASSIS SECTION (2/2)					
P17 - 17		6P Housing Wire (J109)	ADX3118	ADX3118	ADX3118	ADX3132	
P17 - 18		12P Housing Wire (J110)	ADX3119	ADX3119	ADX3119	ADX3133	
P17 - 20		3P Housing Wire (J113)	ADX3122	ADX3122	ADX3122	ADX3136	

Note: For PCB ASSEMBLIES, Refer to " CONTRAST OF PCB ASSEMBLIES ".

■ CONTRAST OF PCB ASSEMBLIES

• 50 X DRIVE ASSY

AWW1020 and AWW1075 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		AWW1075	AWW1020	
	[50 X RESONANCE BLOCK]			
	IC1101	AXF1142	AXF1155	
	C1101	ACG1112 (0.22 UF/250V)	ACG1088 (0.1UF/250V)	
	C1106 - C1110	Not used	ACE1178	
	C1112, C1113	ACG1112 (0.22UF/250V)	Not used	
	C1161 - C1164, C1166	ACE1168	Not used	

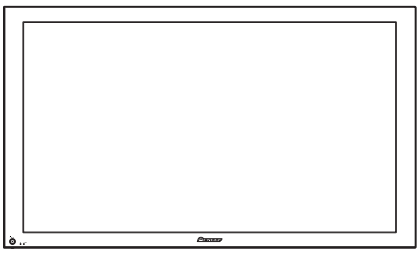
• 50 Y DRIVE ASSY

AWV2210 and AWZ2258 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		AWV2258	AWV2210	
	[50 Y RESONANCE BLOCK]			
	IC2101	AXF1142	AXF1155	
	C2103	ACG1112 (0.22UF/250V)	ACG1088 (0.1UF/250V)	
	C2107, C2108	ACG1112 (0.22UF/250V)	Not used	
	C2131- C2134, C2136	ACE1168	ACE1178	
	[50 Y SUS BLOCK]			
	C2271	ACG1124 (0.1UF/100V)	ACG1118 (0.33UF/100V)	
	C2272	ACG1124 (0.1UF/100V)	Not used	

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Service Manual



PDP-506PE

ORDER NO.
ARP3267

PLASMA DISPLAY

PDP-506PE
PDP-506PU

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
PDP-506PE	WYVI	AC220 - 240V	
PDP-506PU	KUCXC	AC120V	

Note:
Media Receivers up to Generation 5 (G5) cannot be connected with this unit.
Be sure to use a Media Receiver of Generation 6 (G6) (ex.: PDP-R06∗∗, etc.).



For details, refer to "Important Check Points for good servicing".

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SAFETY INFORMATION

This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 - Proposition 65

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

SAFETY PRECAUTIONS

NOTICE : Comply with all cautions and safety related notes located on or inside the cabinet and on the chassis.

The following precautions should be observed :

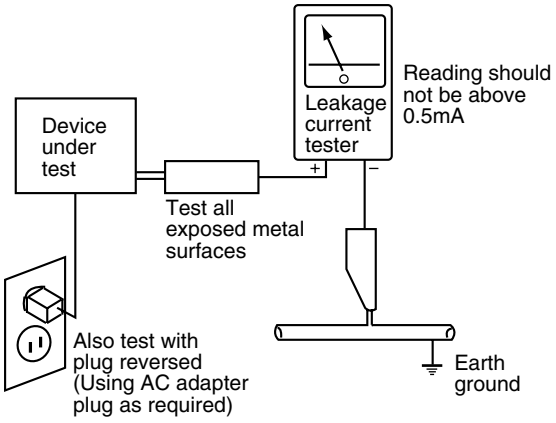
1. When service is required, even though the PDP UNIT an isolation transformer should be inserted between the power line and the set in safety before any service is performed.
2. When replacing a chassis in the set, all the protective devices must be put back in place, such as barriers, nonmetallic knobs, adjustment and compartment covershields, isolation resistor-capacitor, etc.
3. When service is required, observe the original lead dress. Extra precaution should be taken to assure correct lead dress in the high voltage circuitry area.
4. Always use the manufacture's replacement components. Especially critical components as indicated on the circuit diagram should not be replaced by other manufacture's. Furthermore where a short circuit has occurred, replace those components that indicate evidence of overheating.
5. Before returning a serviced set to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the set by the manufacture has become defective, or inadvertently defeated during servicing. Therefore, the following checks should be performed for the continued protection of the customer and servicetechnician.
6. Perform the following precautions against unwanted radiation and rise in internal temperature.
   - Always return the internal wiring to the original styling.
   - Attach parts (Gascket, Ferrite Core, Ground, Rear Cover, Shield Case etc.) surely after disassembly.
7. Perform the following precautions for the PDP panel.
   - When the front case is removed, make sure nothing hits the panel face, panel corner, and panel edge (so that the glass does not break).
   - Make sure that the panel vent does not break. (Check that the cover is attached.)
   - Handle the FPC connected to the panel carefully. Twisting or pulling the FPC when connecting it to the connector will cause it to peel off from the panel.
8. Pay attention to the following.
   - Pay extreme caution when the front case and rear panel are removed because this may cause a high risk of disturbance to TVs and radios in the surrounding.

Leakage Current Cold Check

With the AC plug removed from an AC power source, place a jumper across the two plug prongs. Turn the AC power switch on. Using an insulation tester (DC 500V), connect one lead to the jumpered AC plug and touch the other lead to each exposed metal part (input/output terminals, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis. Exposed metal parts having a return path to the chassis should have a minimum resistor reading of 0.3MΩ and a maximum resistor reading of 5MΩ. Any resistor value below or above this range indicates an abnormality which requires corrective action. Exposed metal parts not having a return path to the chassis will indicate an open circuit.

Leakage Current Hot Check

Plug the AC line cord directly into an AC power source (do not use an isolation transformer for this check).
Turn the AC power switch on.
Using a "Leakage Current Tester (Simpson Model 229 equivalent)", measure for current from all exposed metal parts of the cabinet (input/output terminals, screwheads, metal overlays, control shaft, etc.), particularly any exposed metal part having a return path to the chassis, to a known earth ground (water pipe, conduit, etc.). Any current measured must not exceed 0.5mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE SET TO THE CUSTOMER.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in PIONEER set have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.
Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire or other hazards.
Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

■Charged Section

The places where the commercial AC power is used without passing through the power supply transformer.
If the places are touched, there is a risk of electric shock. In addition, the measuring equipment can be damaged if it is connected to the GND of the charged section and the GND of the non-charged section while connecting the set directly to the commercial AC power supply. Therefore, be sure to connect the set via an insulated transformer and supply the current.

1. Power Cord
2. AC Inlet
3. Power Switch (S1)
4. Fuse (In the POWER SUPPLY Unit)
5. STB Transformer and Converter Transformer (In the POWER SUPPLY Unit)
6. Other primary side of the POWER SUPPLY Unit

■High Voltage Generating Point

The places where voltage is 100V or more except for the charged places described above. If the places are touched, there is a risk of electric shock.

If the procedures described in "7.1.5 POWER ON/OFF FUNCTION FOR THE LARGE-SIGNAL SYSTEM" are performed before the power is turned off, the voltage will be discharged in about 30 seconds.

1. POWER SUPPLY Unit.....(205V)
2. 50 X DRIVE Assy ..... (–180V to 205V)
3. 50 Y DRIVE Assy ..... (500V)
4. 50 SCAN A Assy ..... (500V)
5. 50 SCAN B Assy ..... (500V)
6. SUS CLAMP 1 Assy .....(–180V to 205V)
7. SUS CLAMP 2 Assy .....(–180V to 205V)

: Part is Charged Section.
: Part is the High Voltage Generating Points other than the Charged Section.

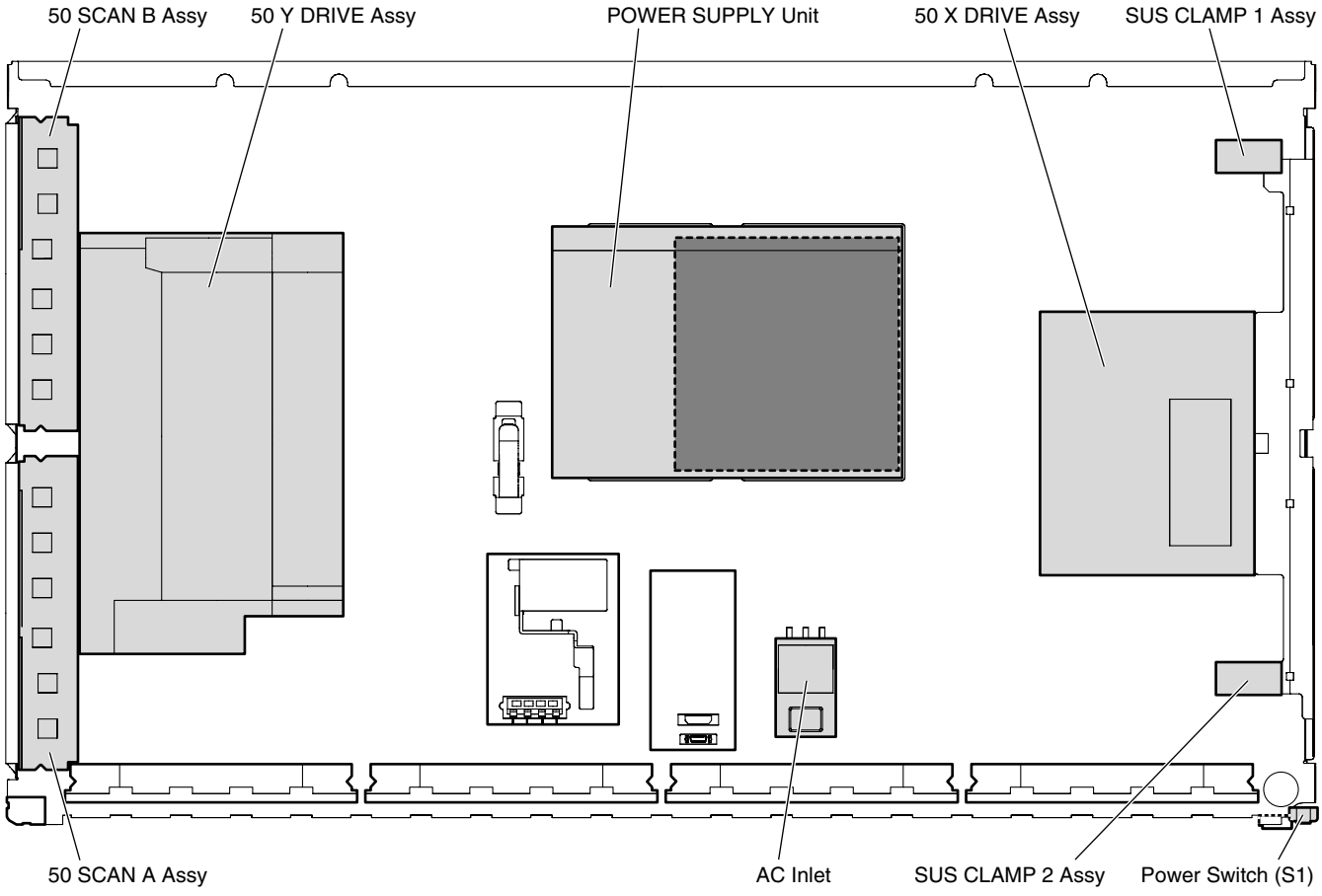


Fig.1 Charged Section and High Voltage Generating Point (Rear View)

[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol.
Please be sure to confirm and follow these procedures.

1. Product safety



Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification(addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris.
Soldering should be finished with the proper quantity. (Refer to the example)

④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs.
In addition, be sure that there are no pinched wires, etc.

⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages.
If you find a damaged power cord, please exchange it with a suitable one.

⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries.
Please pay attention to your surroundings and repair safely.

2. Adjustments



To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification.
Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts



Use grease and adhesives that are equal to the specified substance.
Make sure the proper amount is applied.

4. Cleaning



For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

5. Shipping mode and Shipping screws



To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

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1. SPECIFICATIONS

Item	50" Plasma Display, Model: PDP-506PE	50" Plasma Display, Model: PDP-506PU
Number of Pixels	1280 × 768 pixels	1280 × 768 pixels
Audio Amplifier	13 W + 13 W (1 kHz, 10 %, 8Ω)	13 W + 13 W (1 kHz, 10 %, 8Ω)
Surround System	SRS/FOCUS/TruBass	SRS/FOCUS/TruBass
Power Requirement	220 - 240 V AC, 50/60 Hz, 344 W (0.4 W Standby)	120 V AC, 60 Hz, 355 W (0.2 W Standby)
Dimensions	1224 (W) × 717 (H) × 92 (D) mm	1224 (W) × 717 (H) × 92 (D) mm (48 3/16 (W) × 28 1/4 (H) × 3 5/8 (D) inches)
Weight	31.8 kg (70.1 lbs.)	31.8 kg (70.1 lbs.)

• Design and specifications are subject to change without notice.

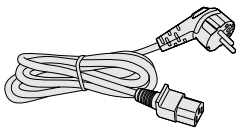
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Accessories

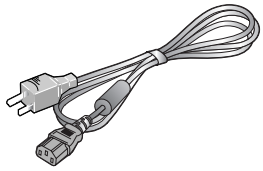
Power cord (2 m)

For PDP-506PE



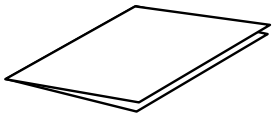
(ADG1214)

For PDP-506PU

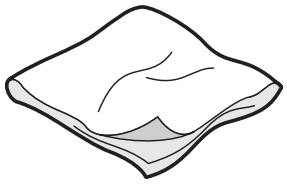


(ADG1215)

Only the power cord that is appropriate in your country or region is supplied.

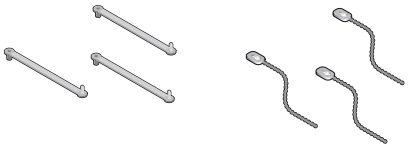


Warranty card



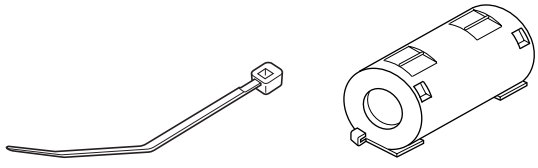
Cleaning cloth
(AED1285)

Binder Assy (AEC1908)



Speed clamp x 3 Bead band x 3

Ferrite Core (ATX1039)(PDP-506PE only)

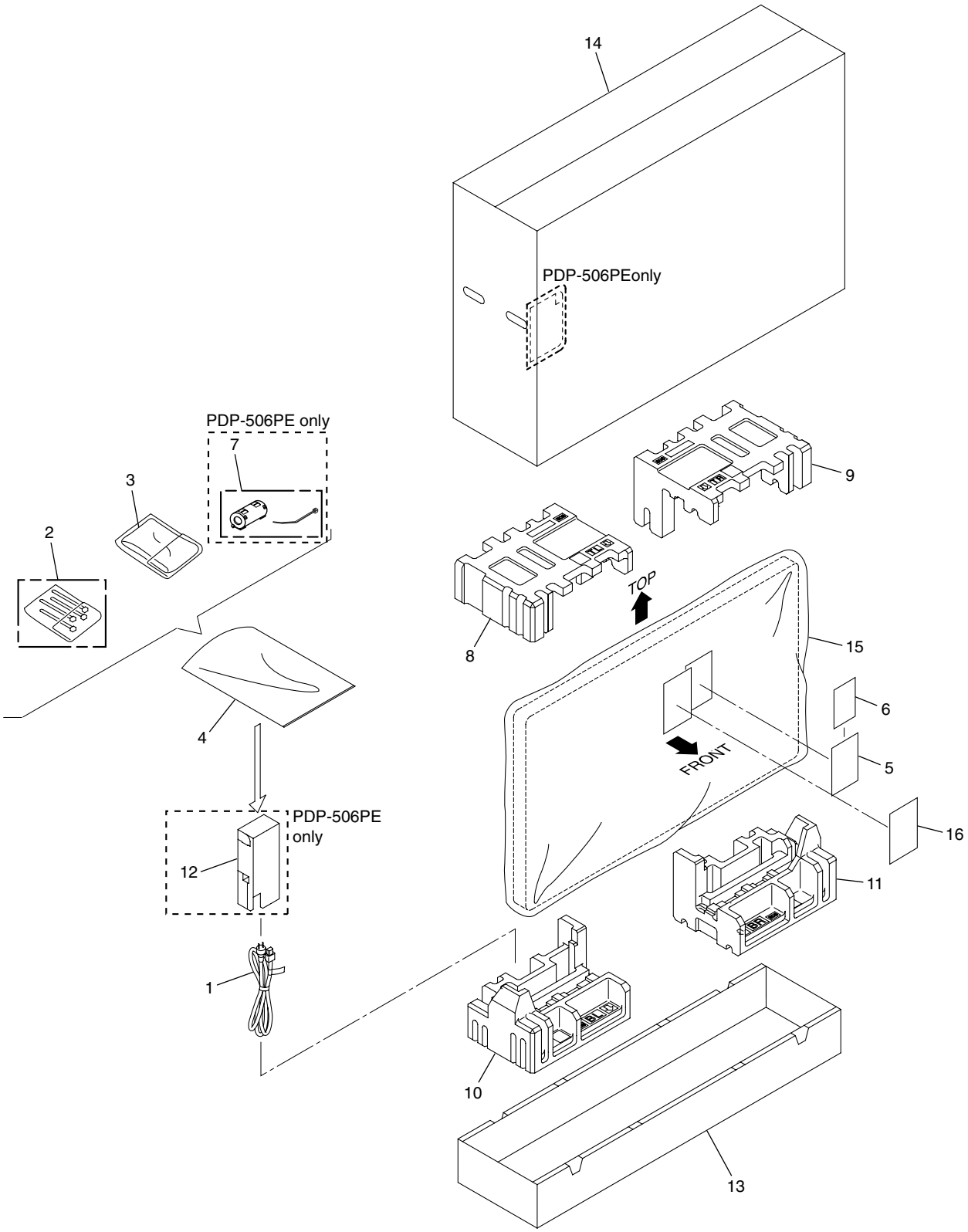


Cable tie Ferrite core

2. EXPLODED VIEWS AND PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent to ▼ mark on product are used for disassembly.*
- *For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)*

2.1 PACKING SECTION



(1) PACKING SECTION PARTS LIST

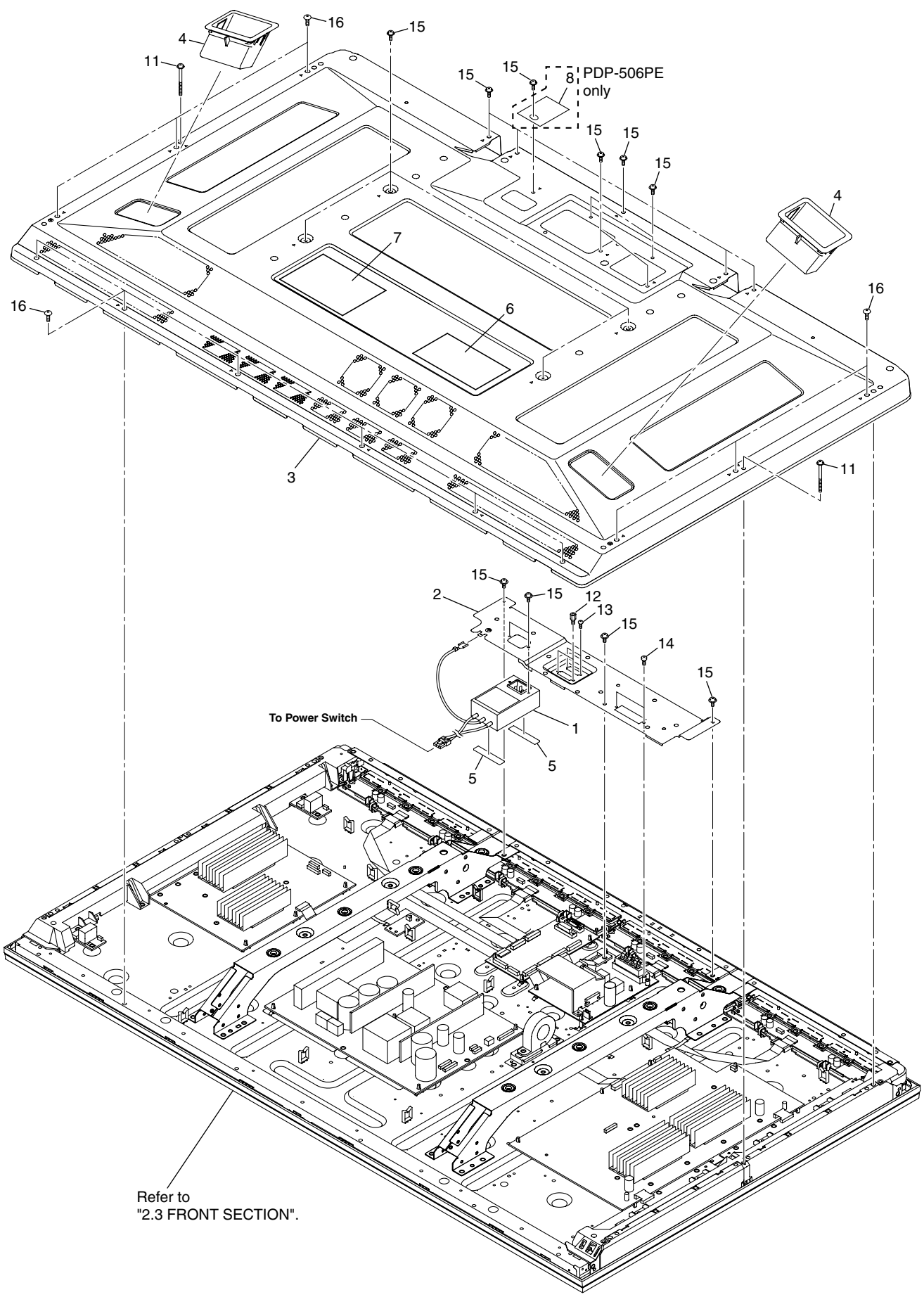
Mark	No.	Description	Part No.
⚠	1	Power Cord	See Contrast table (2)
	2	Binder Assy	AEC1908
	3	Cleaning Cloth	AED1285
	4	Polyethylene Bag S	See Contrast table (2)
NSP	5	Catalogue Bag	See Contrast table (2)
NSP	6	Warranty card	See Contrast table (2)
⚠	7	Ferrite Core	See Contrast table (2)
	8	Pad (50T-L)	See Contrast table (2)
	9	Pad (50T-R)	See Contrast table (2)
	10	Pad (50B-L)	See Contrast table (2)
	11	Pad (50B-R)	See Contrast table (2)
	12	Power Cord Case	See Contrast table (2)
	13	Under Carton	See Contrast table (2)
	14	Upper Carton	See Contrast table (2)
	15	Mirror Mat	See Contrast table (2)
	16	Caution Card	See Contrast table (2)

(2) CONTRAST TABLE

PDP-506PE/WYVI and PDP-506PU/KUCXC are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-506PE/WYVI	PDP-506PU/KUCXC
⚠	1	Power Cord	ADG1214	ADG1215
	4	Polyethylene Bag S	AHG1338	AHG1348
NSP	5	Catalogue Bag	AHG1340	AHG1347
NSP	6	Warranty Card	ARY1114	ARY1145
⚠	7	Ferrite Core	ATX1039	Not used
	8	Pad (50T-L)	AHA2427	AHA2459
	9	Pad (50T-R)	AHA2428	AHA2460
	10	Pad (50B-L)	AHA2429	AHA2461
	11	Pad (50B-R)	AHA2430	AHA2462
	12	Power Cord Case	AHC1073	Not used
	13	Under Carton (50)	AHD3344	Not used
	13	Under Carton (506PU)	Not used	AHD3379
	14	Upper Carton (506PE)	AHD3345	Not used
	14	Upper Carton (506PU)	Not used	AHD3383
	15	Mirror Mat	AHG1284	AHG1352
	16	Caution Card	ARM1232	ARM1239

2.2 REAR SECTION



(1) REAR SECTION PARTS LIST

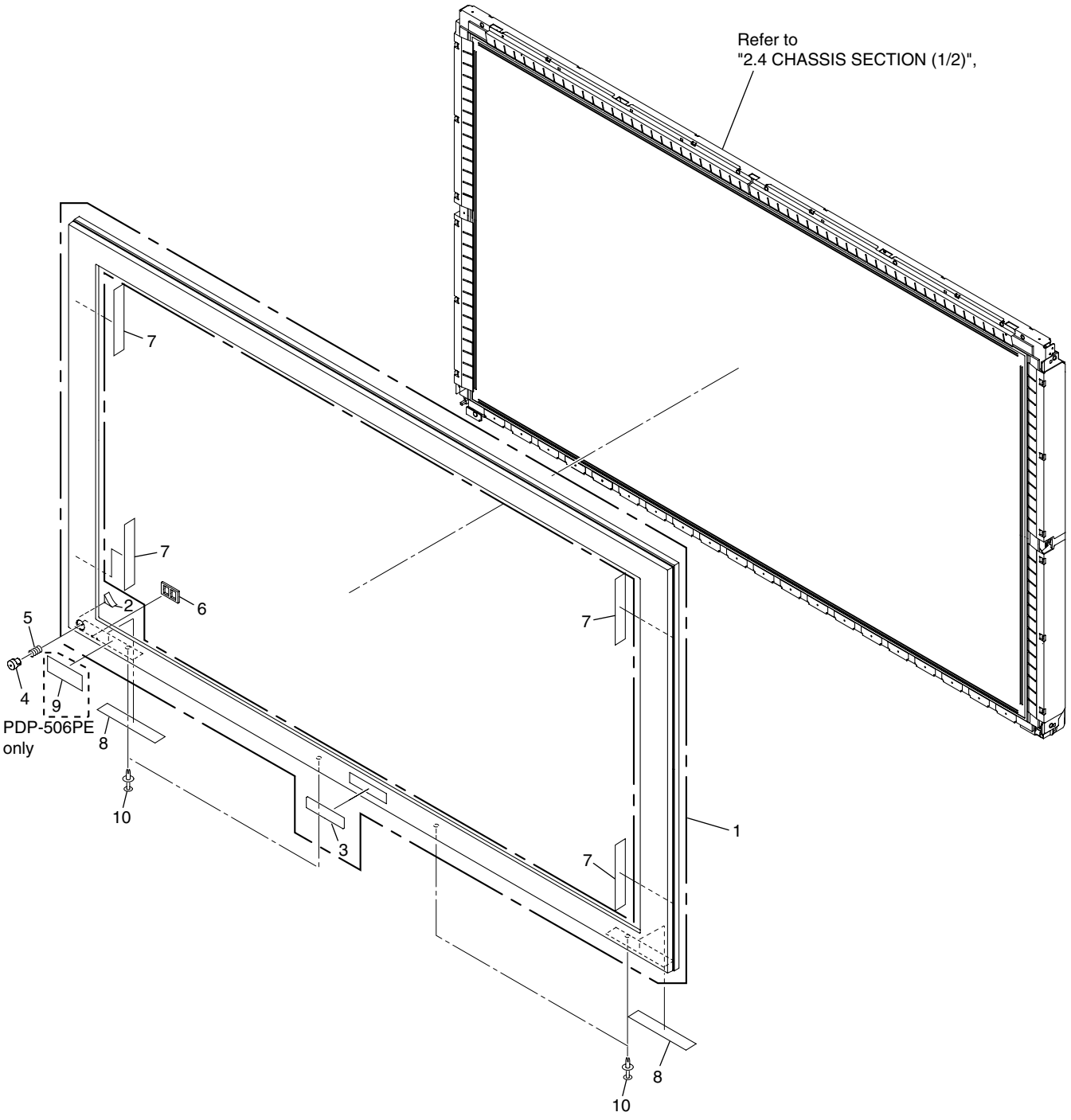
Mark	No.	Description	Part No.
⚠	1	AC Inlet	AKP1274
	2	Control Plate	AND1185
	3	Rear Case (506)	ANE1639
	4	Inner Grip Assy	AMR3434
	5	AC Cushion	AEC2035
NSP	6	Model Label	See Contrast table (2)
	7	Caution Label	See Contrast table (2)
	8	AC Label PE	See Contrast table (2)
	9	•••••	
	10	•••••	
	11	Screw (3 x 40P)	ABA1332
	12	Hexagon Head Screw	BBA1051
	13	Screw	PMZ26P060FTB
	14	Screw	BPZ30P080FTB
	15	Screw	AMZ30P060FTB
	16	Screw	TBZ40P080FTB

(2) CONTRAST TABLE

PDP-506PE/WYVI and PDP-506PU/KUCXC are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-506PE/WYVI	PDP-506PU/KUCXC
NSP	6	Model Label (506PE)	AAL2661	Not used
NSP	6	Model Label (506PU)	Not used	AAL2679
	7	Caution Label	AAX3117	AAX3075
	8	AC Label PE	AAX3194	Not used

2.3 FRONT SECTION



(1) FRONT SECTION PARTS LIST

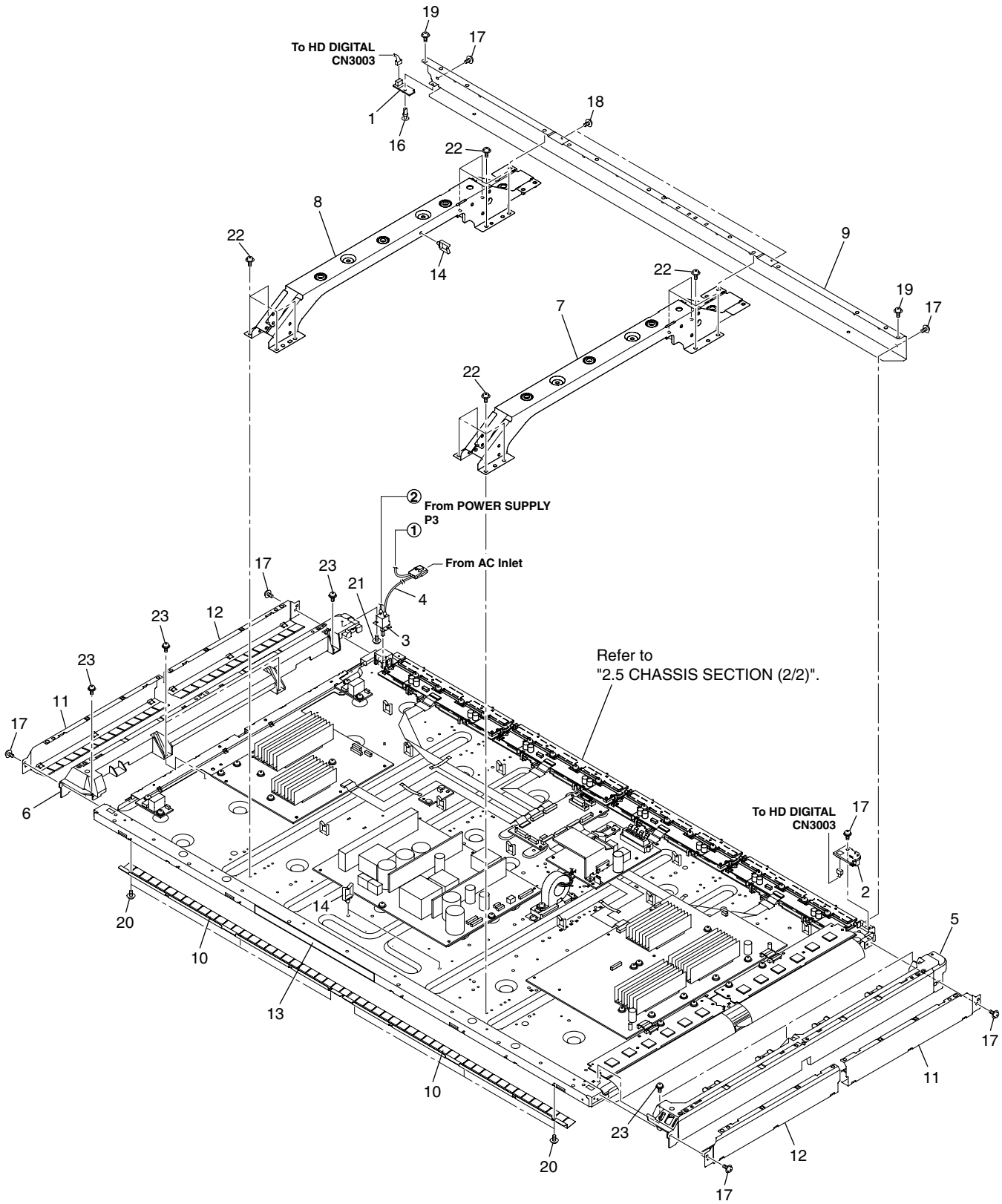
Mark	No.	Description	Part No.
	1	Front Case Assy (506PE)	AMB2861
	2	Corner Cushion	AEB1416
	3	Pioneer Name Plate	AAM1098
	4	Power Button	AAD4133
	5	Coil Spring	ABH1120
	6	Blind Cushion	AEB1415
	7	Insulation Sheet A	AED1283
	8	Insulation Sheet B	AED1284
	9	Power Display Label (506)	See Contrast table (2)
	10	Screw Rivet	AEC1877

(2) CONTRAST TABLE

PDP-506PE/WYVI and PDP-506PU/KUCXC are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-506PE/WYVI	PDP-506PU/KUCXC
	9	Power Display Label (506)	AAX3217	Not used

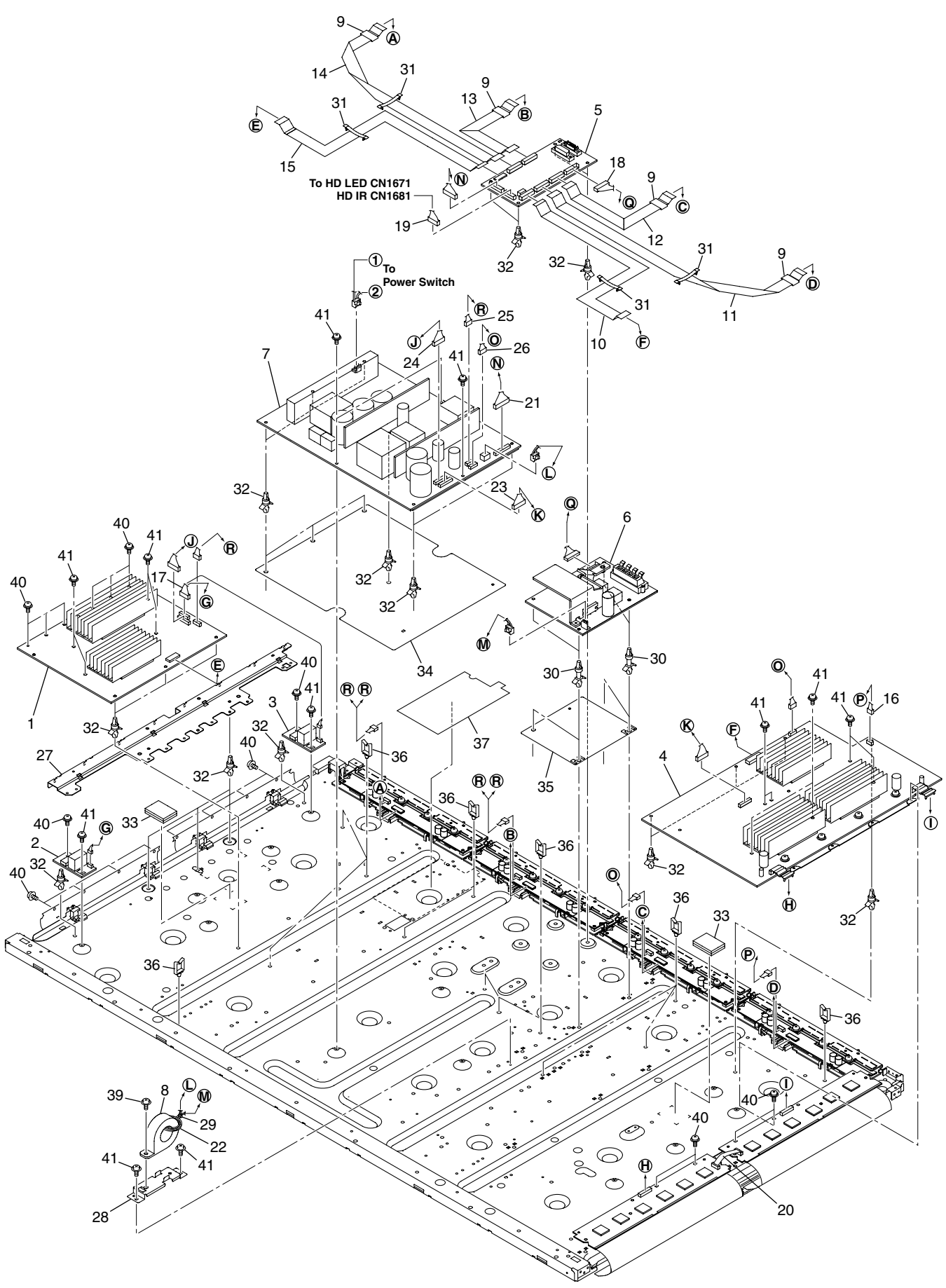
2.4 CHASSIS SECTION (1/2)



CHASSIS SECTION (1/2) PARTS LIST

Mark	No.	Description	Part No.
	1	HD LED Assy	AWW1029
	2	HD IR Assy	AWW1030
⚠	3	Power Switch (S1)	ASG1092
	4	Housing Wire (50)(J103)	ADX3112
	5	Front Chassis VL (50)	AMA1014
	6	Front Chassis VR (50)	AMA1015
	7	Sub Frame L Assy (506)	ANA1860
	8	Sub Frame R Assy (506)	ANA1861
	9	Front Chassis H Assy (50)	ANA1883
	10	Panel Holder H (50)	ANG2769
	11	Panel Holder V1 (50)	ANG2770
	12	Panel Holder V2 (50)	ANG2771
	13	Cushion	AEB1424
	14	Wire Saddle	AEC1745
	15	•••••	
	16	Nyron Rivet	AEC1671
	17	Screw	ABZ30P080FTC
	18	Screw	AMZ30P060FTB
	19	Screw	APZ30P080FTB
	20	Screw	BBZ30P060FTC
	21	Screw	BPZ30P080FTB
	22	Screw	TBZ40P080FTB
	23	Screw	VBB30P080FNI

2.5 CHASSIS SECTION (2/2)



(1) CHASSIS SECTION (2/2) PARTS LIST

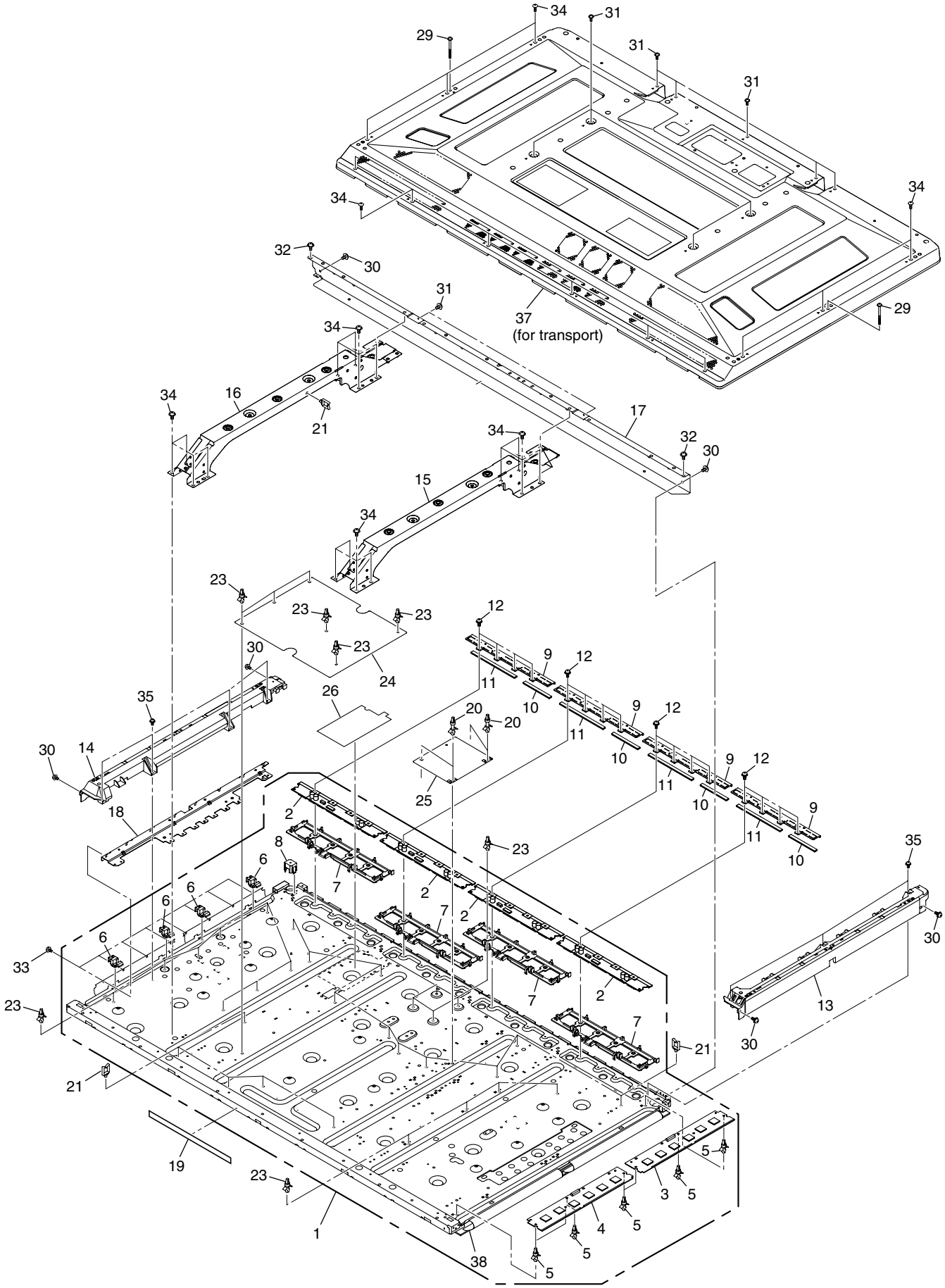
Mark	No.	Description	Part No.
	1	50 X DRIVE Assy	See Contrast table (2)
	2	SUS CLAMP 1 Assy	AWW1022
	3	SUS CLAMP 2 Assy	AWW1023
	4	50 Y DRIVE Assy	See Contrast table (2)
	5	HD DIGITAL Assy	AWW1028
	6	HD AUDIO Assy	AWV2203
⚠	7	POWER SUPPLY Unit	AXY1112
	8	Ring Core with Case	ATX1042
	9	Ferrite Core	ATX1048
	10	Flexible Cable (J201)	ADD1293
	11	Flexible Cable (J202)	ADD1294
	12	Flexible Cable (J203)	ADD1295
	13	Flexible Cable (J204)	ADD1296
	14	Flexible Cable (J205)	ADD1297
	15	Flexible Cable (J206)	ADD1298
	16	4P Housing Wire (J108)	ADX3117
	17	6P Housing Wire (J109)	See Contrast table (2)
	18	12P Housing Wire (J110)	See Contrast table (2)
	19	6P Housing Wire (J111)	ADX3120
	20	3P Housing Wire (J113)	See Contrast table (2)
	21	14P Housing Wire (J104)	ADX3158
	22	3P Housing Wire (J105)	ADX3159
	23	9P Housing Wire (J101)	ADX3186
	24	8P Housing Wire (J102)	ADX3187
	25	5P Housing Wire (J106)	ADX3188
	26	6P Housing Wire (J107)	ADX3189
	27	Conductive Plate XA	ANG2776
	28	FC Stay	ANG2815
	29	Binder	AEC-093
NSP	30	PCB Spacer	AEC1188
	31	Flat Clamp	AEC1879
	32	PCB Spacer	AEC1941
	33	Drive Silicone Sheet	AEH1095
	34	Power Supply Insulation Sheet	AMR3447
	35	Audio Insulation Sheet	AMR3469
	36	Wire Saddle	AEC1745
NSP	37	Address Sheet	AMR3491
	38	•••••	
	39	Screw	ABA1324
	40	Screw	PMB30P060FTC
	41	Screw	VBB30P080FNI

(2) CONTRAST TABLE

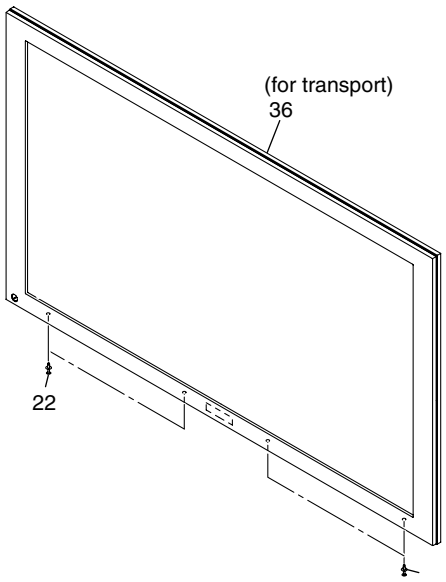
PDP-506PE/WYVI and PDP-506PU/KUCXC are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-506PE/WYVI	PDP-506PU/KUCXC
	1	50 X DRIVE Assy	AWW1075	AWW1020 or AWW1075
	4	50 Y DRIVE Assy	AWV2258	AWV2210 or AWV2258
	17	6P Housing Wire (J109)	ADX3118	ADX3132
	18	12P Housing Wire (J110)	ADX3119	ADX3133
	20	3P Housing Wire (J113)	ADX3122	ADX3136

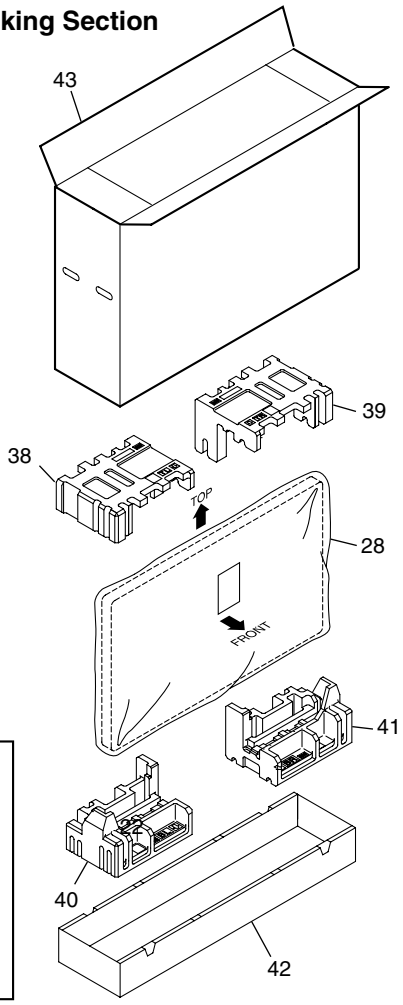
2.6 PDP SERVICE ASSY 506P (AWU1134)



• **Front Section**



• **Packing Section**



Note when replacing with the PDP Service Assy 506P

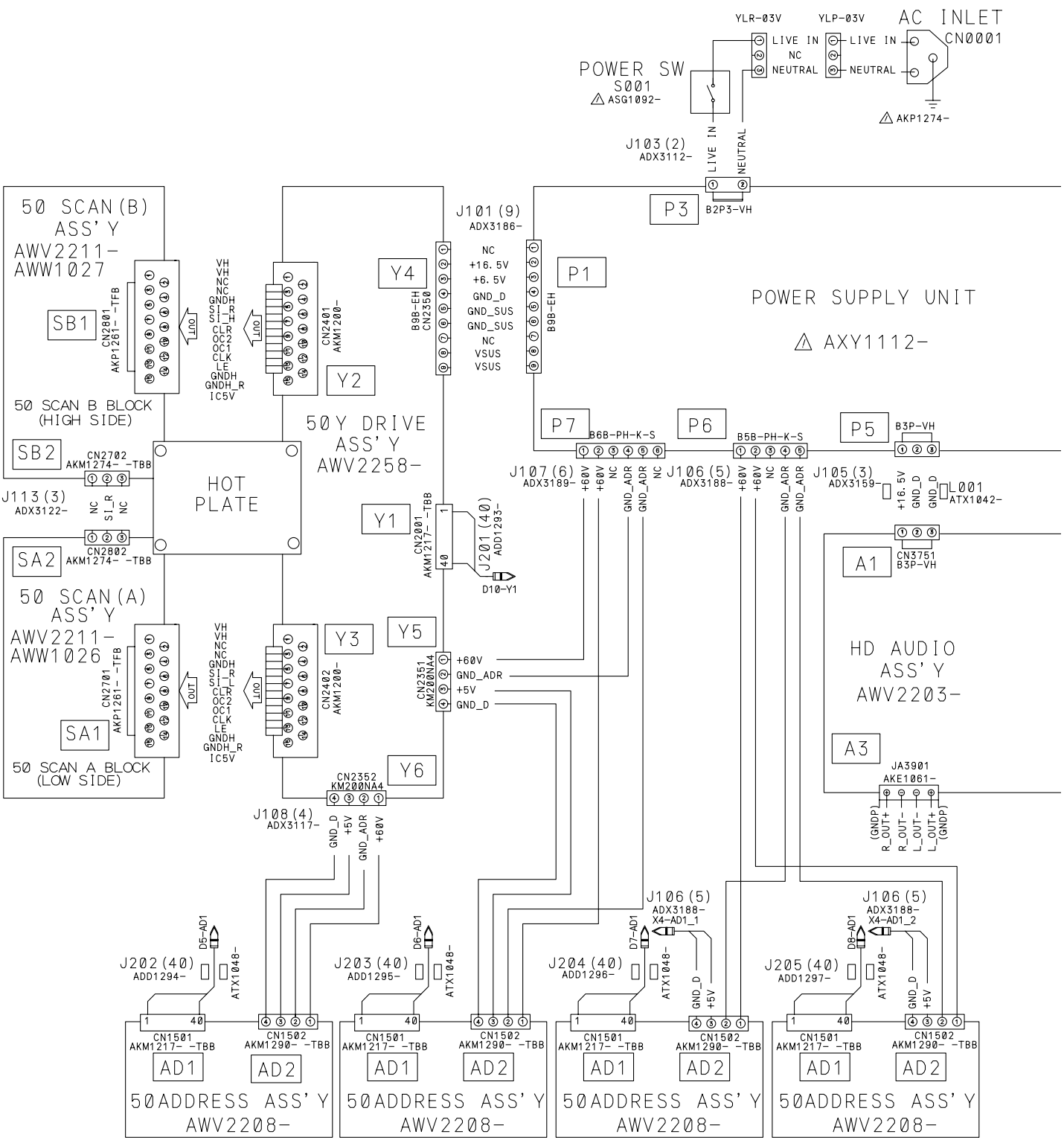
The Power Switch (S1), HD LED Assy, and HD IR Assy are not included in the PDP Service Assy 506P. Before replacement with the PDP Service Assy 506P, the following components of the Service Assy must be temporarily detached to attach the above-mentioned parts (parts from the original unit or newly purchased):
- Front Chassis H Assy (50) (ANA1883)
- Front Chassis VL (50) (AMA1014)
- Front Chassis VR (50) (AMA1015)

PDP SERVICE ASSY 506P (AWU1134) PARTS LIST

Mark	No.	Description	Part No.
NSP	1	Panel Chassis (506) Assy	AWU1143
NSP	2	50 ADDRESS Assy	AWV2208
NSP	3	50 SCAN A Assy	AWW1026
NSP	4	50 SCAN B Assy	AWW1027
	5	PCB Spacer	AEC1944
	6	Conductive Plate Holder	AMR3446
	7	ADDRESS Holder Assy (50)	AMR3454
	8	Tube Cover	AMR3445
	9	Address Heatsink (50)	ANH1635
	10	Address Silicone A	AEH1093
	11	Address Silicone B	AEH1094
	12	Screw	BBB30P120FNI
	13	Front Chassis VL (50)	AMA1014
	14	Front Chassis VR (50)	AMA1015
	15	Sub Frame L Assy (506)	ANA1860
	16	Sub Frame R Assy (506)	ANA1861
	17	Front Chassis H Assy (50)	ANA1883
	18	Conductive Plate XA	ANG2776
	19	Cushion	AEB1424
NSP	20	PCB Spacer	AEC1188
	21	Wire Saddle	AEC1745
	22	Screw Rivet	AEC1877
	23	PCB Spacer	AEC1941
	24	Power Supply Insulation Sheet	AMR3447
	25	Audio Insulation Sheet	AMR3469
NSP	26	Address Sheet	AMR3491
NSP	27	Chassis Assy (50)	ANA1830
	28	Protect Sheet	AHG1331
	29	Screw (3 x 40P)	ABA1332
	30	Screw	ABZ30P080FTC
	31	Screw	AMZ30P060FTB
	32	Screw	APZ30P080FTB
	33	Screw	PMB30P060FTC
	34	Screw	TBZ40P080FTB
	35	Screw	VBB30P080FNI
NSP	36	Front Case Assy (506 serivice) (for transport)	AMB2889
NSP	37	Rear Case (506) (for transport)	ANE1639
	38	Pad (50T-L)	AHA2427
	39	Pad (50T-R)	AHA2428
	40	Pad (50B-L)	AHA2429
	41	Pad (50B-R)	AHA2430
	42	Under Carton	AHA3344
	43	Upper Carton (506 S.V.C)	AHA3430

3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 OVERALL CONNECTION DIAGRAM



CONNECTOR PIN ASIGN

SYSTEM CABLE

CN1501 AD1	→CN3501 D5	CN1501 AD1	→CN3503 D7
CN1501 AD1	→CN3502 D6	CN1501 AD1	→CN3504 D8

1 →40. GND_D	21→20. CN
2 →39. DIV0	22→19. NC
3 →38. DIV1	23→18. GND_D
4 →37. GND_D	24→17. NC
5 →36. +3.3V	25→16. BP
6 →35. +3.3V	26→15. BN
7 →34. GND_D	27→14. NC
8 →33. GND_D	28→13. GND_D
9 →32. NC	29→12. NC
10→31. DP	30→11. AP
11→30. DN	31→10. AN
12→29. NC	32→9. NC
13→28. GND_D	33→8. GND_D
14→27. NC	34→7. GND_D
15→26. CLKP	35→6. +8V
16→25. CLKN	36→5. +8V
17→24. NC	37→4. GND_D
18→23. GND_D	38→3. GND_D
19→22. NC	(CN3504のPSIZE)
20→21. CP	39→2. ADR_PD
	40→1. NC

CN3506 D10 →CN2001 Y1

1→40. GND_D	21→20. GND_D
2→39. SCN5V_PD	22→19. YSUS-MSK
3→38. SI_L	23→18. YNRST
4→37. SI_H	24→17. YRsv2
5→36. GND_D	25→16. GND_D
6→35. CLR	26→15. YNOFS
7→34. CLK	27→14. YRsv3
8→33. GND_D	28→13. YSOFT-D
9→32. LE	29→12. GND_D
10→31. OC2	30→11. VOFS_ADJ
11→30. OC1 (-1)	31→10. VYPRST_ADJ
12→29. GND_D	32→ 9. GND_D
13→28. YSUS-B	33→ 8. GND_D
14→27. YSUS-U	34→ 7. NC
15→26. GND_D	35→ 6. GND_D
16→25. YSUS-D	36→ 5. YDD_PD
17→24. YSUS-G	37→ 4. YSUS_PD
18→23. GND_D	38→ 3. SCAN_PD
19→22. YPR-U	39→ 2. YDRV_PD
20→21. YRsv1	40→ 1. PSW

CN3505 D9 →CN1001 X1

1→18. PSW	
2→17. XSUS_PD	
3→16. XDD_PD	
4→15. XDRV_PD	
5→14. GND_D	
6→13. XRsv1	
7→12. XSUS_MSK	
8→11. GND_D	
9→10. XNR-D	
10→ 9. GND_D	
11→ 8. XSUS-Q	
12→ 7. GND_D	
13→ 6. XSUS-D	
14→ 5. GND_D	
15→ 4. XSUS-U	
16→ 3. GND_D	
17→ 2. XSUS-B	
18→ 1. GND_D	

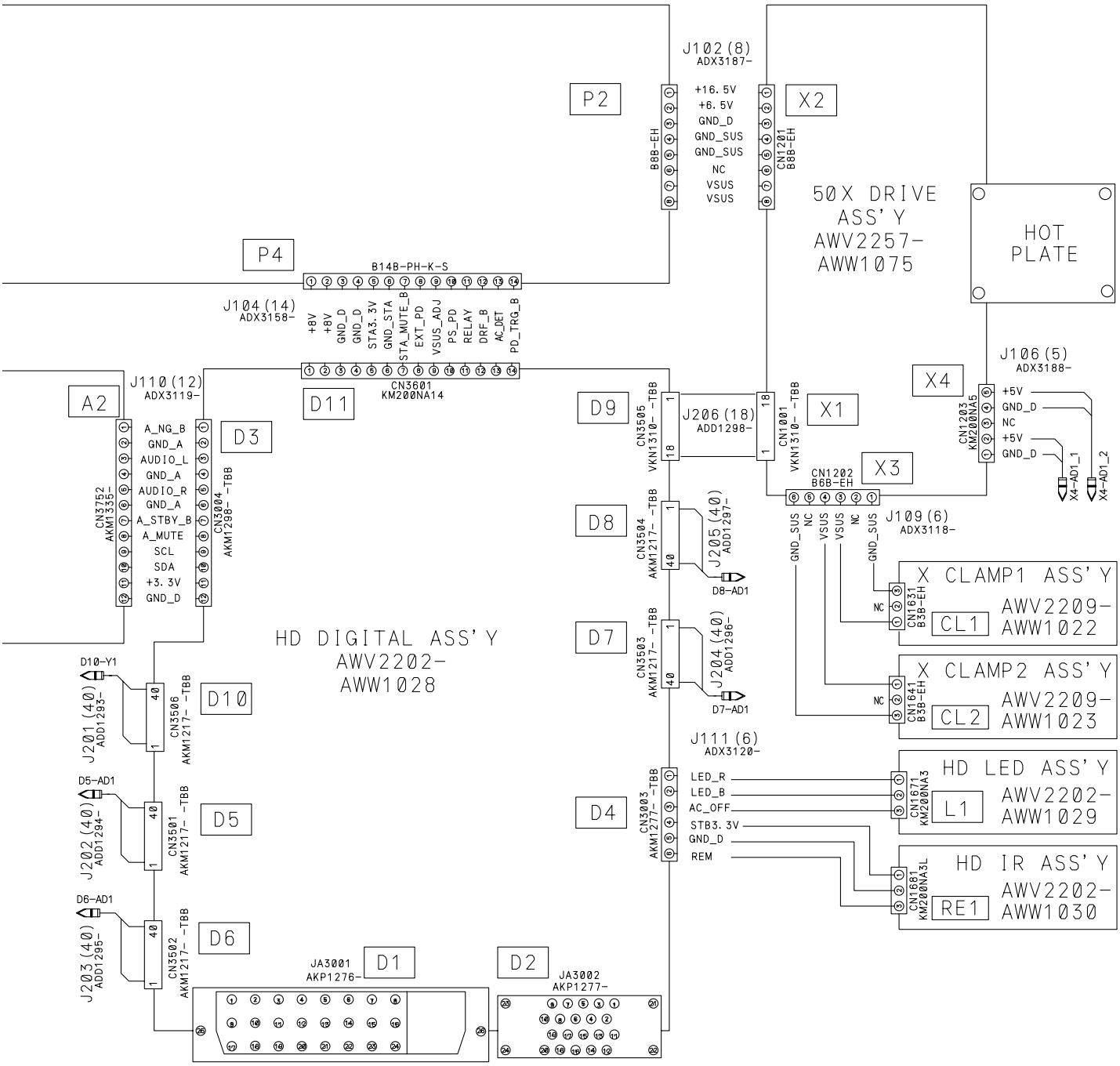
JA3001 AKP1276-

1. RX2-	
2. RX2+	
3. GND_D	
4. NC	
5. NC	
6. DDC_SCL	
7. DDC_SDA	
8. NC	
9. RX1-	
10. RX1+	
11. GND_D	
12. NC	
13. NC	
14. DDC_+5V	
15. GND_D	
16. HPD	
17. RX0-	
18. RX0+	
19. GND_D	
20. NC	
21. NC	
22. GND_D	
23. RXC+	
24. RXC-	

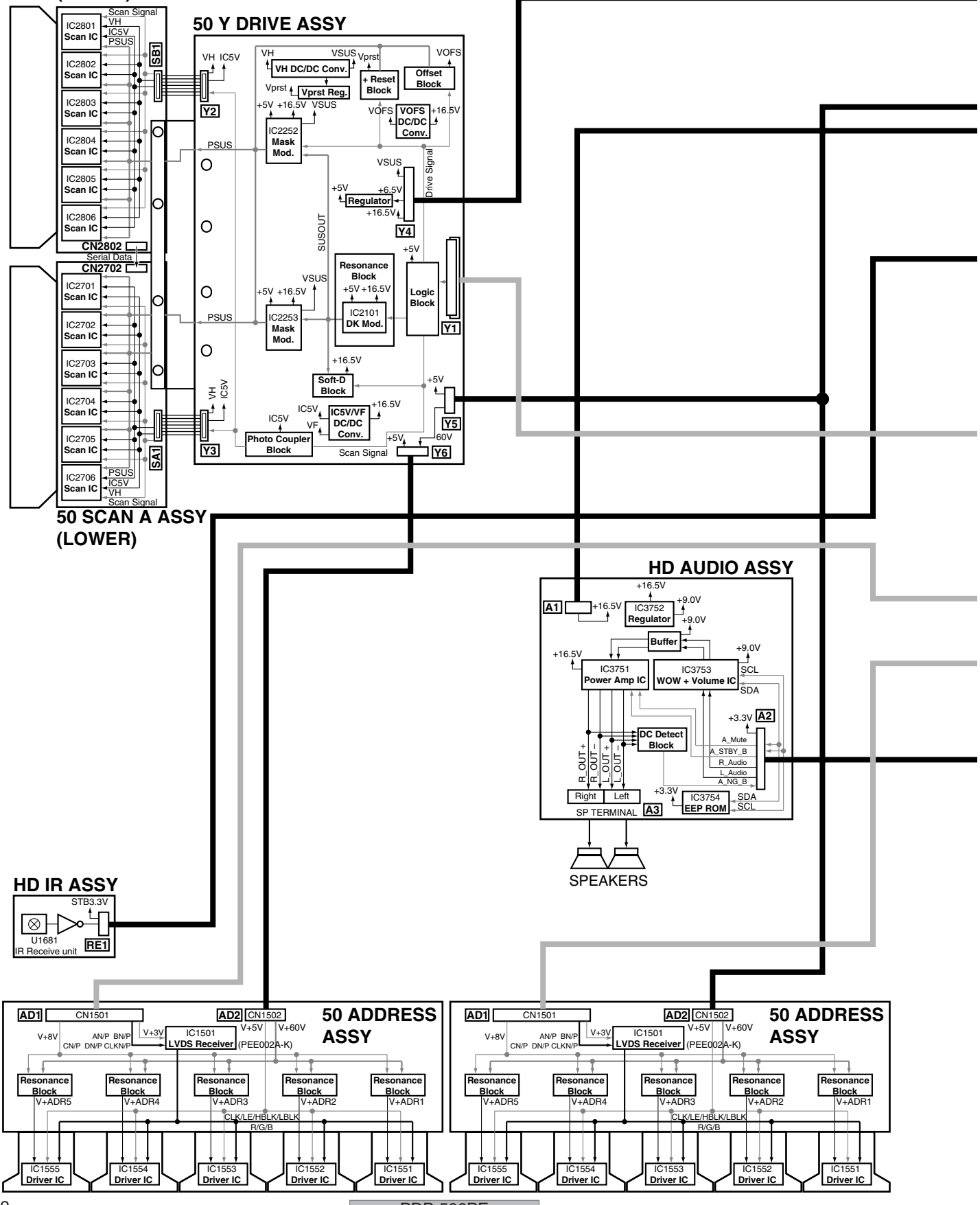
JA3002 AKP1277-

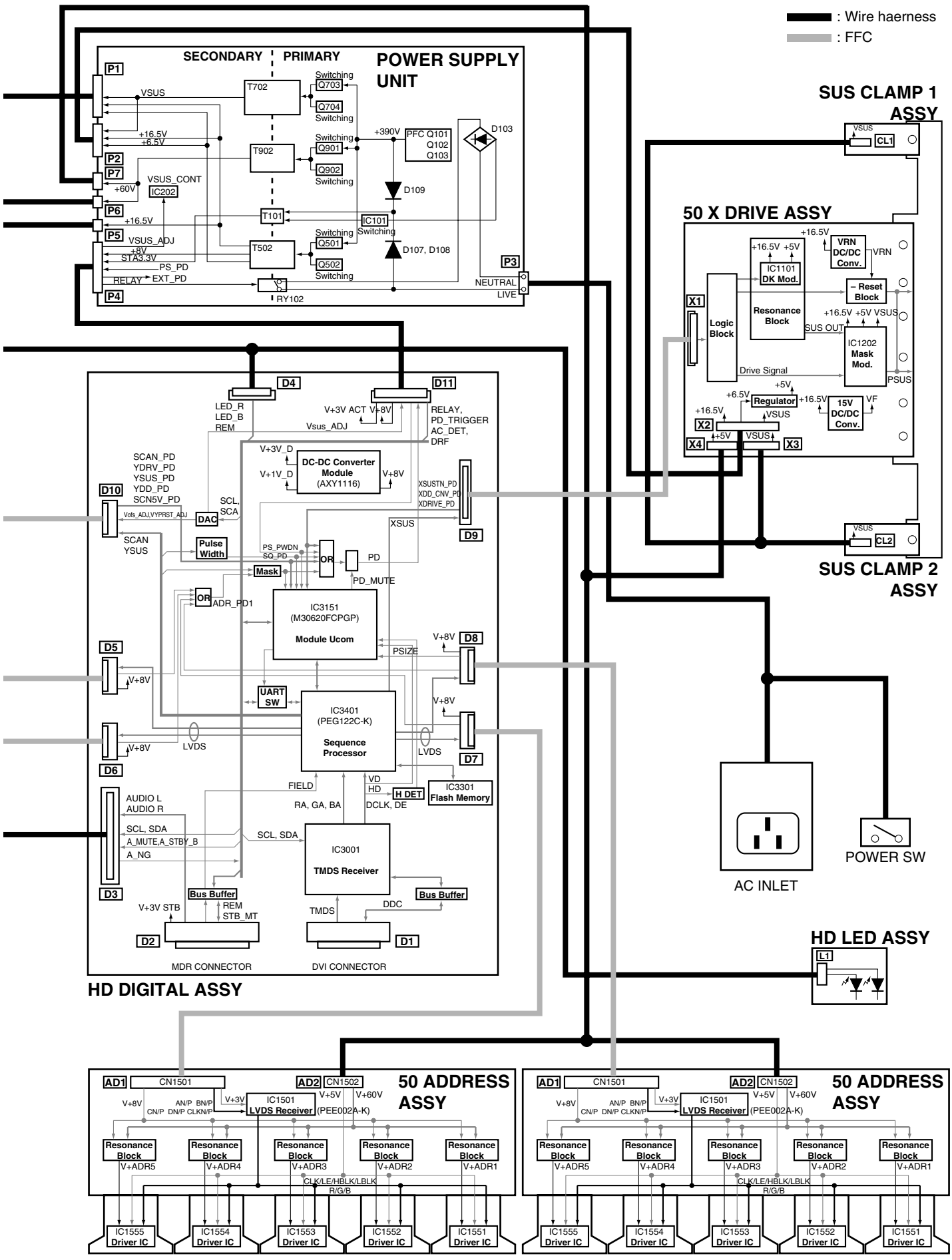
1. MR_ST_B	
2. MRXD	
3. P_ST_B	
4. STA3.3V	
5. AC_OFF	
6. GND_D	
7. REQ	
8. STP3.3V	
9. KEY_B	
10. MR_ST_B	
11. MTXD	
12. GND_D	
13. AUDIO_R	
14. REM_B	
15. STB_MT	
16. GND_D	
17. VIS	
18. FIELD	
19. GND_D	
20. AUDIO_L	

- When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

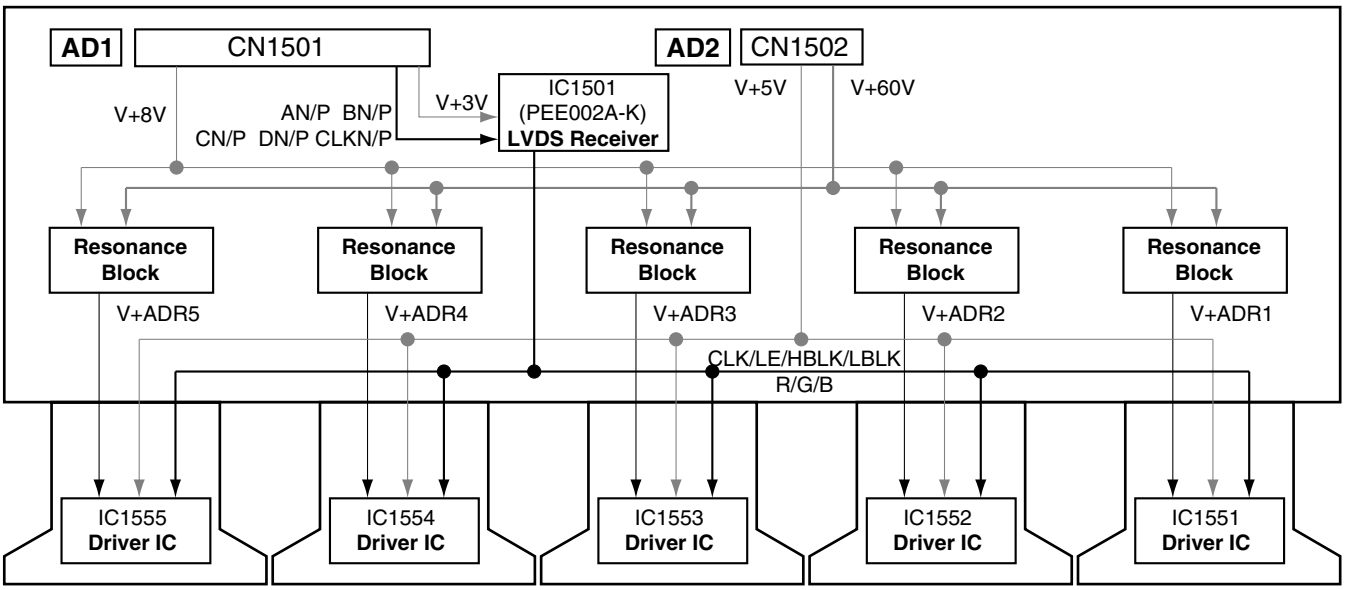


3.2 OVERALL BLOCK DIAGRAM

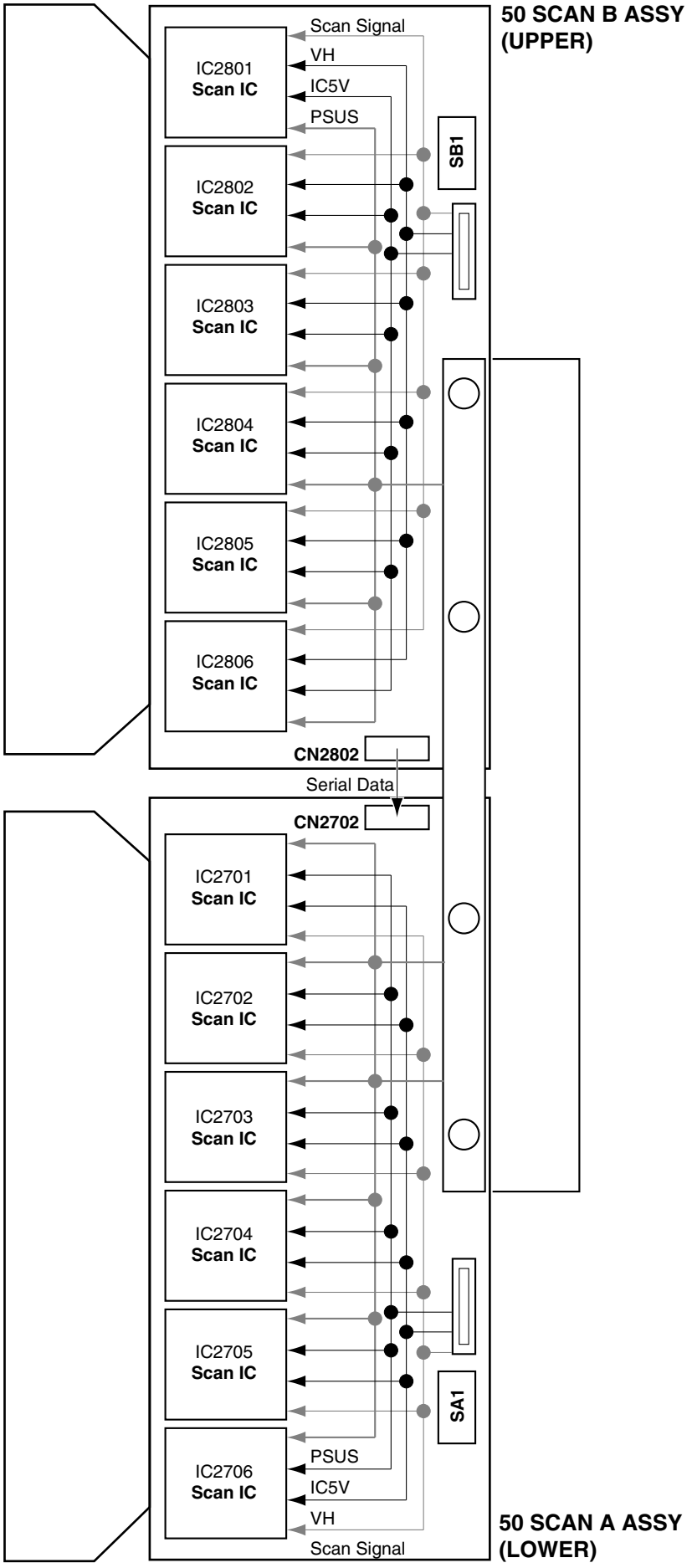



: Wire haerness
: FFC
POWER SUPPLY UNIT
SECONDARY
PRIMARY
P1
P2
P3
P4
P5
P6
P7
VSUS
+16.5V
+6.5V
+60V
VSUS_CONT
IC202
+16.5V
VSUS_ADJ
+8V
STA3.3V
PS_PD
RELAY
EXT_PD
RY102
T702
T902
T101
T502
Switching
Q703
Q704
Q901
Q902
Q501
Q502
+390V
PFC Q101
Q102
Q103
D103
D109
IC101
D107, D108
NEUTRAL
LIVE
SUS CLAMP 1 ASSY
CL1
50 X DRIVE ASSY
VRN DC/DC Conv.
VRN
IC1101 DK Mod.
– Reset Block
Resonance Block
Logic Block
X1
SUS OUT
IC1202 Mask Mod.
Drive Signal
PSUS
Regulator
15V DC/DC Conv.
VF
X2
X3
X4
SUS CLAMP 2 ASSY
CL2
D4
D11
LED_R
LED_B
REM
V+3V ACT
V+8V
Vsus_ADJ
RELAY,
PD_TRIGGER
AC_DET,
DRF
V+3V_D
V+1V_D
DC-DC Converter Module (AXY1116)
SCAN_PD
YDRV_PD
YSUS_PD
YDD_PD
SCN5V_PD
D10
Vofs_ADJ,VYPRST_ADJ
DAC
SCL,
SCA
SCAN
YSUS
Pulse Width
Mask
PS_PWDN
SQ_PD
OR
PD
PD_MUTE
ADR_PD1
XSUSTN_PD
XDD_CNV_PD
XDRIVE_PD
D9
XSUS
IC3151 (M30620FCPGP)
Module Ucom
D5
D8
PSIZE
UART SW
IC3401 (PEG122C-K)
Sequence Processor
D6
D7
LVDS
FIELD
VD
HD
H DET
IC3301 Flash Memory
RA, GA, BA
DCLK, DE
AUDIO L
AUDIO R
SCL, SDA
A_MUTE,A_STBY_B
A_NG
IC3001
TMDS Receiver
D3
Bus Buffer
V+3V STB
REM
STB_MT
TMDS
DDC
D2
D1
MDR CONNECTOR
DVI CONNECTOR
HD DIGITAL ASSY
AC INLET
POWER SW
HD LED ASSY
L1
AD1
CN1501
AD2
CN1502
50 ADDRESS ASSY
AN/P BN/P
CN/P DN/P CLKN/P
IC1501 LVDS Receiver (PEE002A-K)
V+3V
V+5V
V+60V
Resonance Block
V+ADR5
V+ADR4
V+ADR3
V+ADR2
V+ADR1
CLK/LE/HBLK/LBLK
R/G/B
IC1555 Driver IC
IC1554 Driver IC
IC1553 Driver IC
IC1552 Driver IC
IC1551 Driver IC

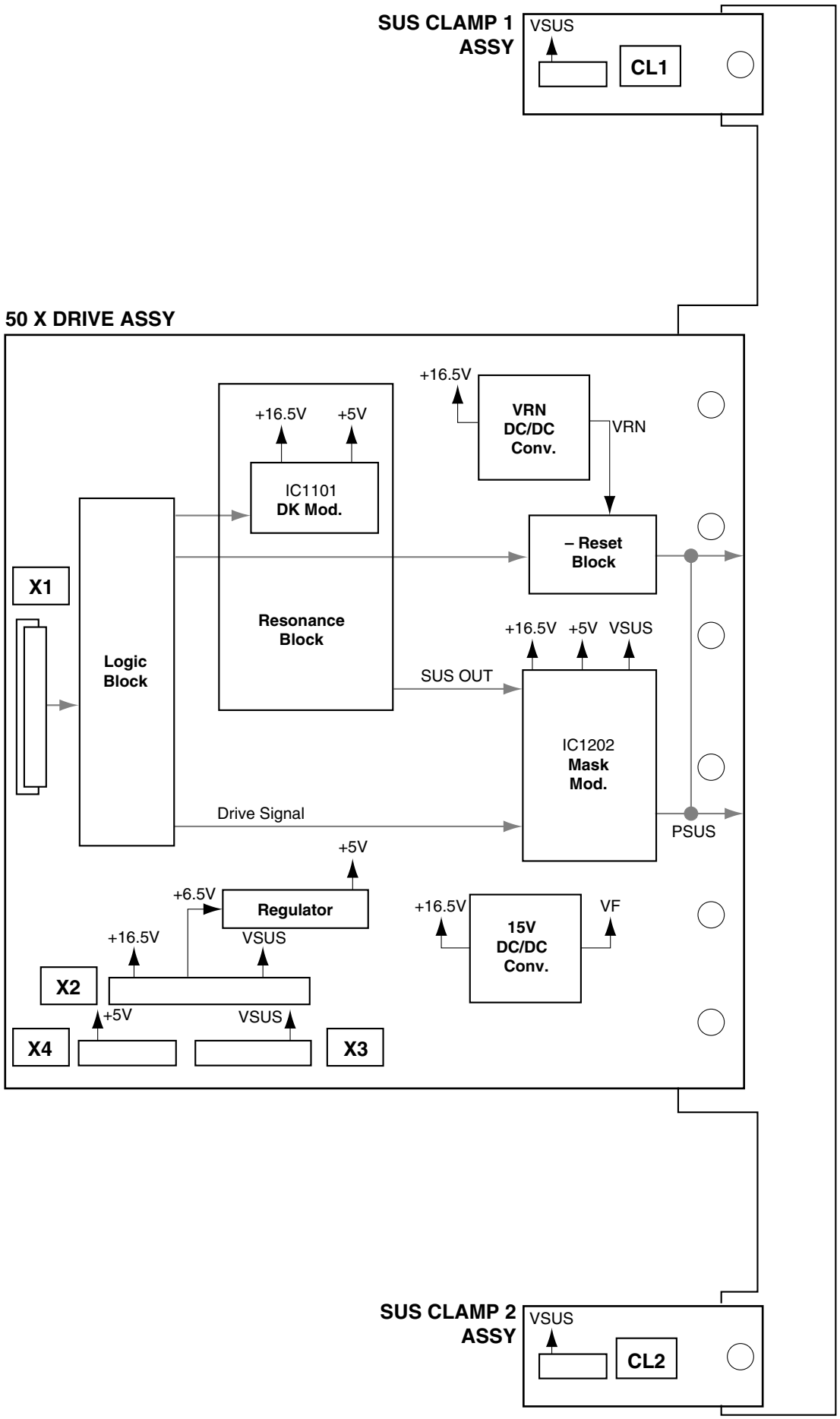
3.3 50 ADDRESS ASSY



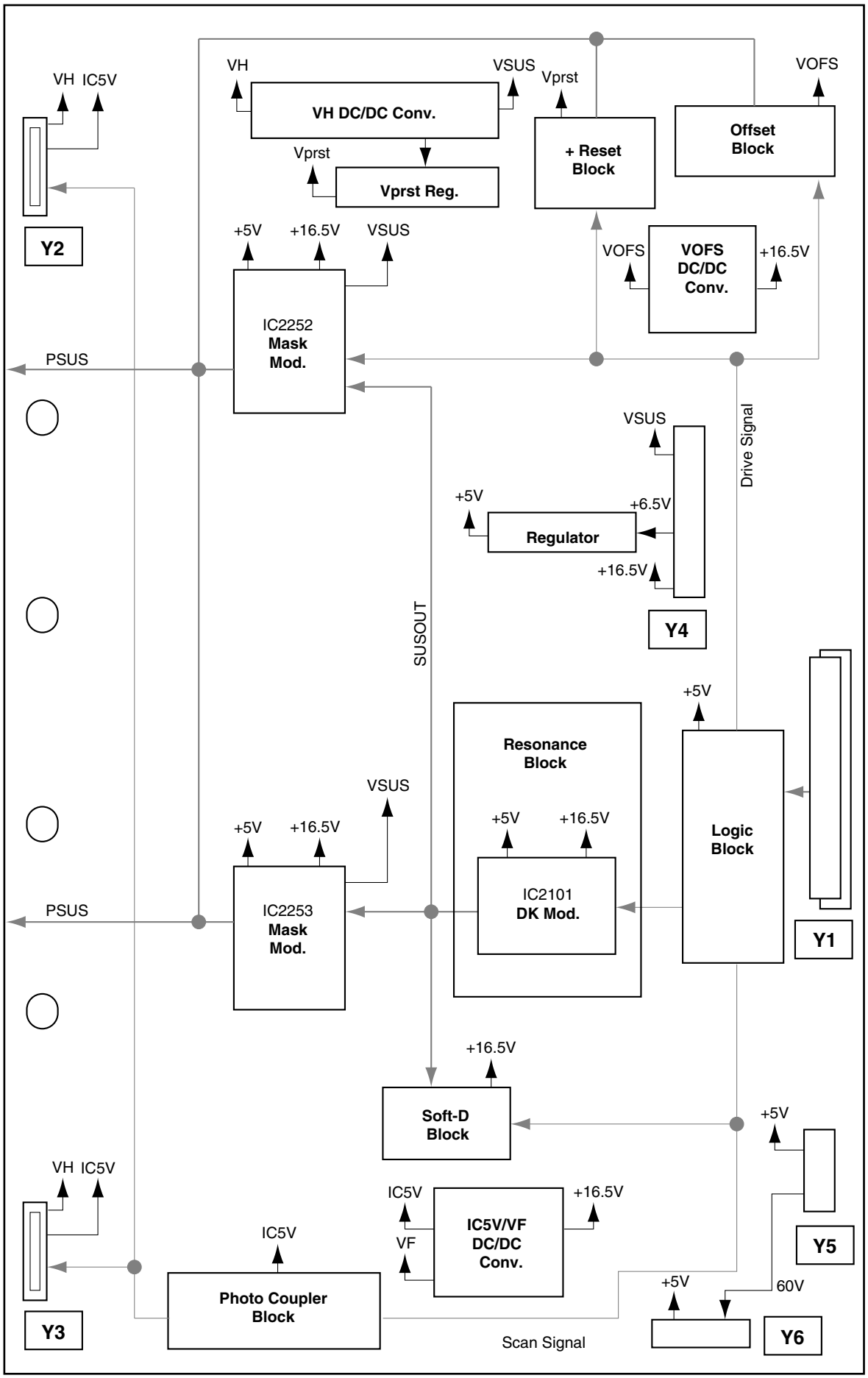
3.4 50 SCAN A and B ASSYS



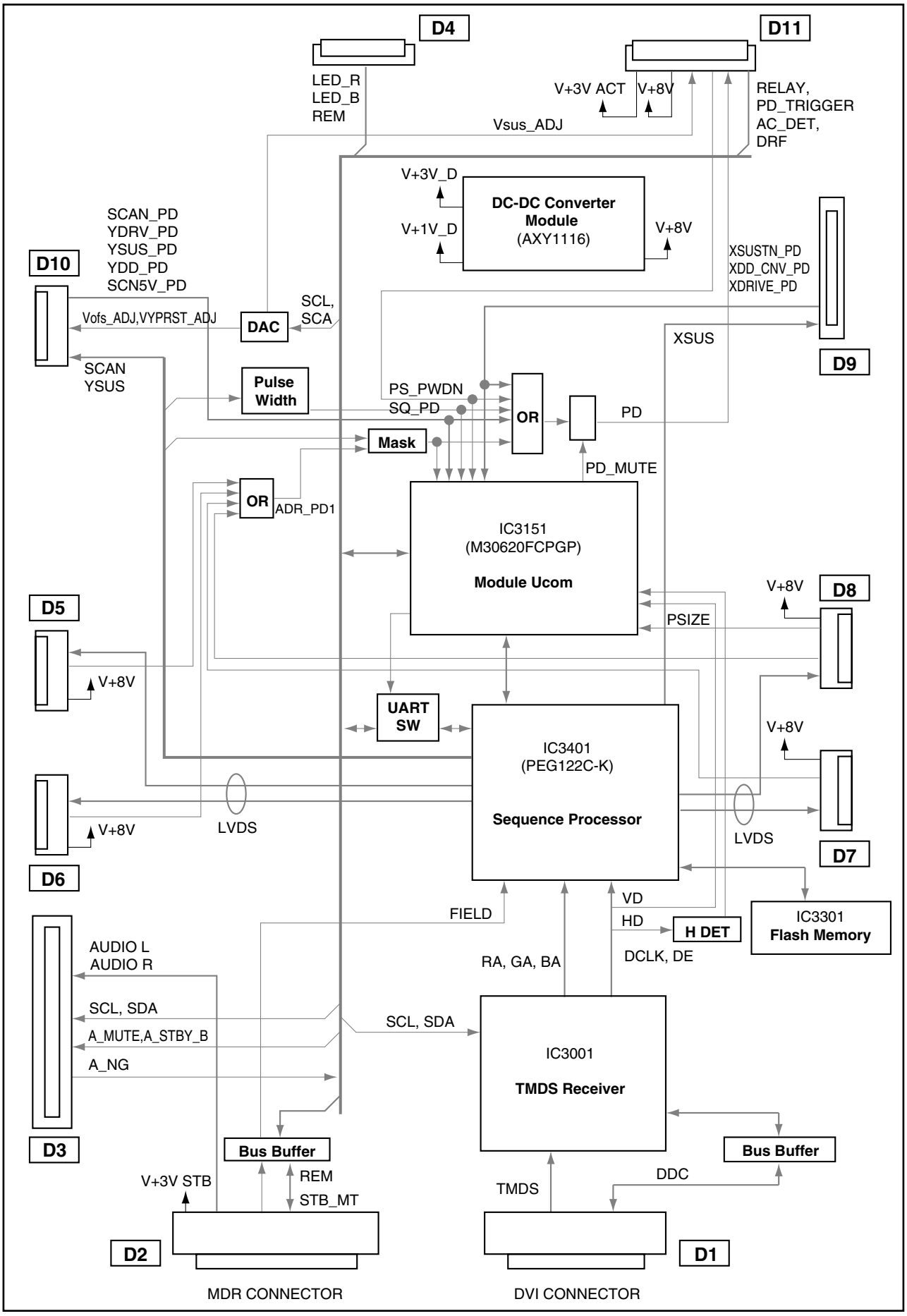
3.5 50 X DRIVE, SUS CLAMP 1 and SUS CLAMP 2 ASSYS



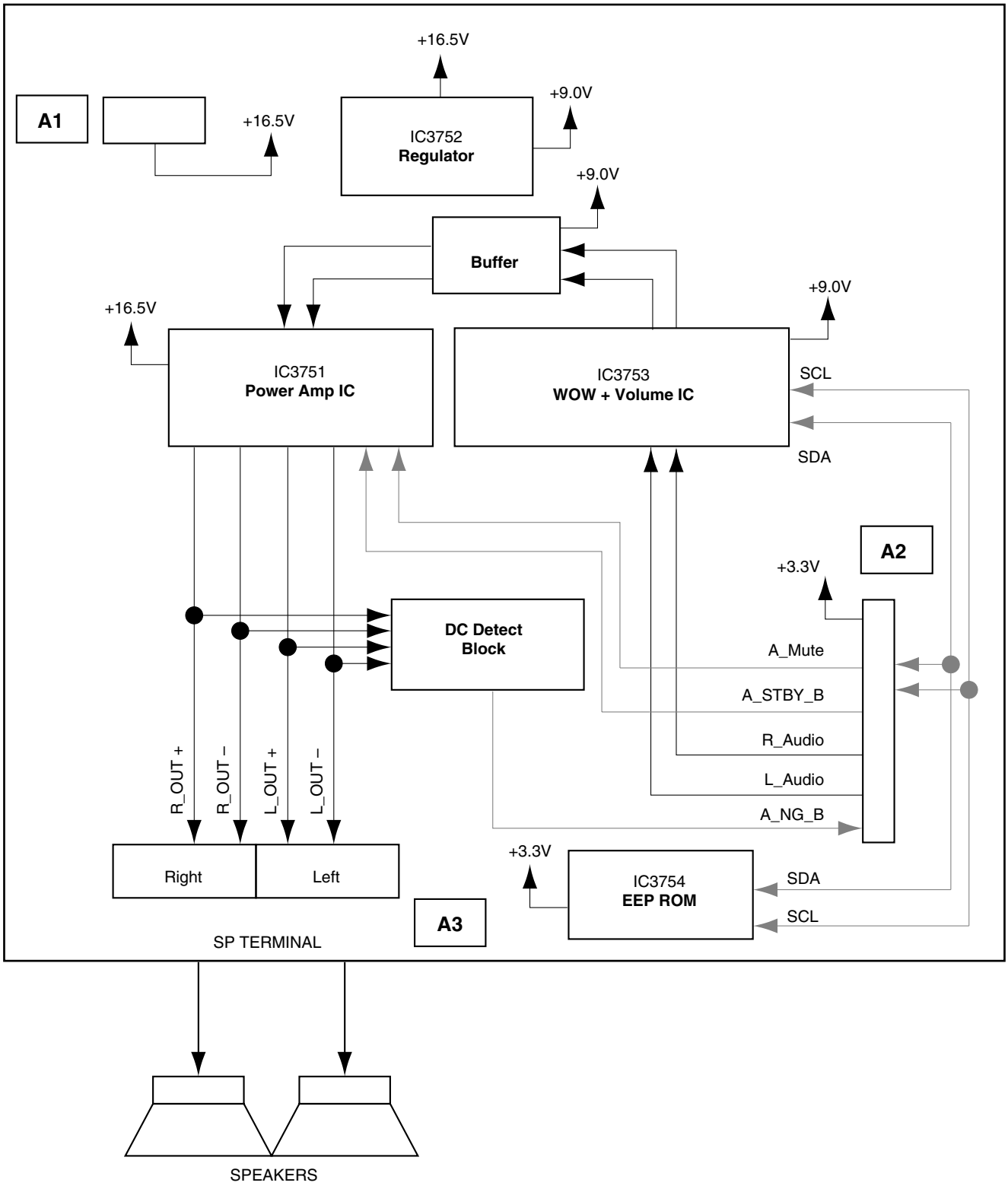
3.6 50 Y DRIVE ASSY



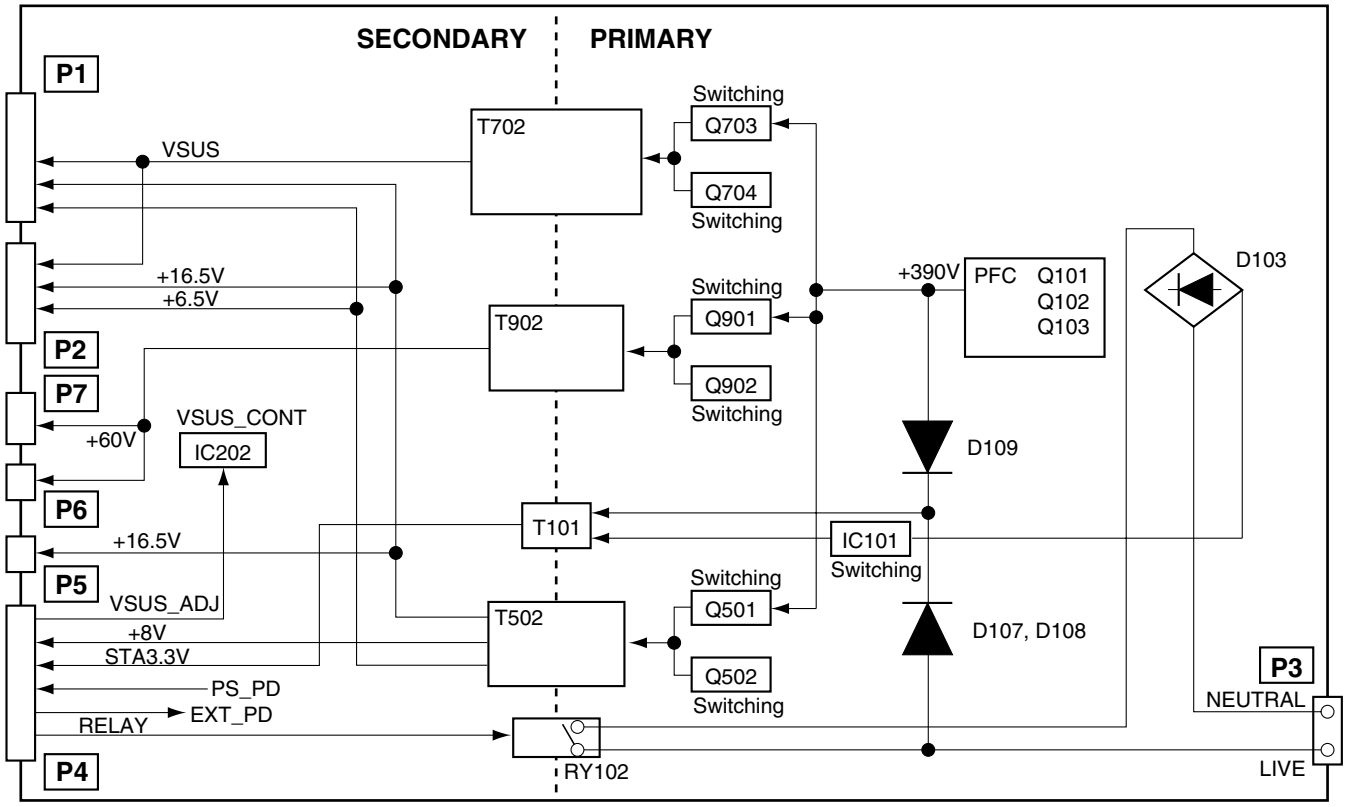
3.7 HD DIGITAL ASSY



3.8 HD AUDIO ASSY



3.9 POWER SUPPLY UNIT



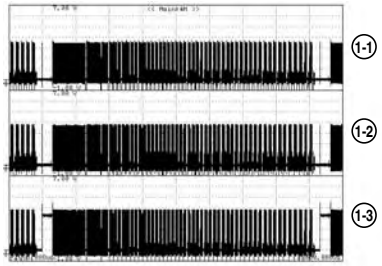
3.10 WAVEFORMS

Note : The encircled numbers denote measuring point in the schematic diagram.
Refer to service manual (ARP3268).

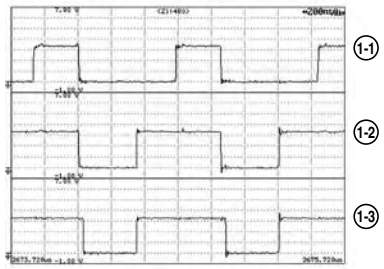
50 ADDRESS ASSY

50 ADDRESS RESONANCE BLOCK

① Control signal of resonance circuit (1 field)
Input : VIDEO 60Hz
Signal : Color-bar (MKSS17)
①-1 CH1 : ADR_B2
V : 1V/div H : 2msec/div
①-2 CH2 : ADR_U2
V : 1V/div H : 2msec/div
①-3 CH3 : ADR_D2
V : 1V/div H : 2msec/div

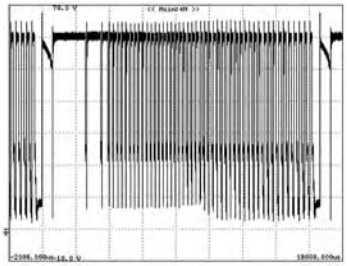


① Control signal of resonance circuit (2 FS)
Input : VIDEO 60Hz
Signal : Color-bar (MKSS17)
①-1 CH1 : ADR_B2
V : 1V/div H : 2msec/div
①-2 CH2 : ADR_U2
V : 1V/div H : 2msec/div
①-3 CH3 : ADR_D2
V : 1V/div H : 2msec/div

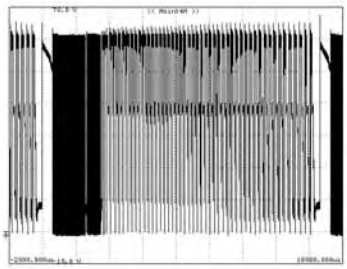


50 ADDRESS LOGIC BLOCK

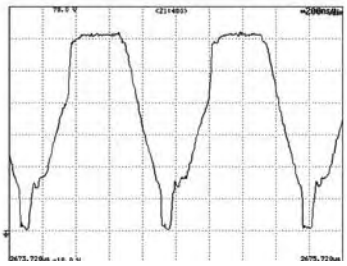
② VADR (1 field)
Input : VIDEO 60Hz
Signal : Color-bar (MKSS17)
CH2 : IC1555-pin 3 (VDD2)
V : 10V/div H : 2msec/div



② VADR (1 field)
Input : VIDEO 60Hz
Signal : Checkered pattern of Black-White (MKSS13)
CH2 : IC1555-pin 3 (VDD2)
V : 10V/div H : 2msec/div

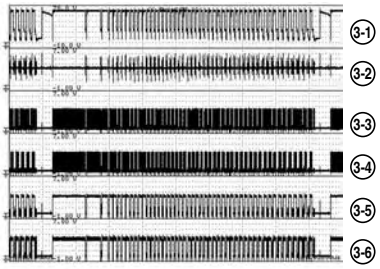


② VADR (2 FS)
Input : VIDEO 60Hz
Signal : Checkered pattern of Black-White (MKSS13)
CH2 : IC1555-pin 3 (VDD2)
V : 10V/div H : 200nsec/div

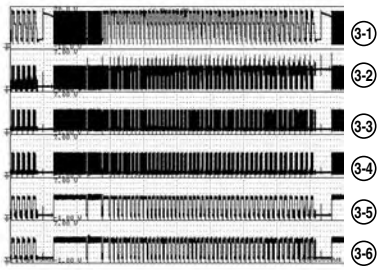


TCP LOGIC

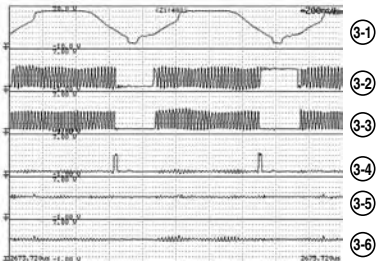
③ Incoming signal of TCP (1 field)
Input : VIDEO 60Hz
Signal : Color-bar (MKSS17)
③-1 CH1 : IC1555-pin 3 (VDD2)
V : 10V/div H : 2msec/div
③-2 CH2 : IC1555-pin 9 (A3)
V : 1V/div H : 2msec/div
③-3 CH3 : IC1555-pin 16 (CLK)
V : 1V/div H : 2msec/div
③-4 CH4 : IC1555-pin 14 (LE)
V : 1V/div H : 2msec/div
③-5 CH5 : IC1555-pin 19 (HBLK)
V : 1V/div H : 2msec/div
③-6 CH6 : IC1555-pin 17 (LBLK)
V : 1V/div H : 2msec/div



③ Incoming signal of TCP (1 field)
Input : VIDEO 60Hz
Signal : Checkered pattern of Black-White (MKSS13)
③-1 CH1 : IC1555-pin 3 (VDD2)
V : 10V/div H : 2msec/div
③-2 CH2 : IC1555-pin 9 (A3)
V : 1V/div H : 2msec/div
③-3 CH3 : IC1555-pin 16 (CLK)
V : 1V/div H : 2msec/div
③-4 CH4 : IC1555-pin 14 (LE)
V : 1V/div H : 2msec/div
③-5 CH5 : IC1555-pin 19 (HBLK)
V : 1V/div H : 2msec/div
③-6 CH6 : IC1555-pin 17 (LBLK)
V : 1V/div H : 2msec/div



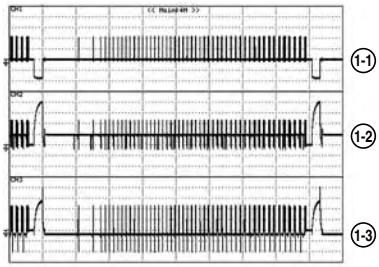
③ Incoming signal of TCP (Resonance part)
Input : VIDEO
Signal : Checkered pattern of Black-White (MKSS13)
③-1 CH1 : IC1555-pin 3 (VDD2)
V : 10V/div H : 200nsec/div
③-2 CH2 : IC1555-pin 9 (A3)
V : 1V/div H : 200nsec/div
③-3 CH3 : IC1555-pin 16 (CLK)
V : 1V/div H : 200nsec/div
③-4 CH4 : IC1555-pin 14 (LE)
V : 1V/div H : 200nsec/div
③-5 CH5 : IC1555-pin 19 (HBLK)
V : 1V/div H : 200nsec/div
③-6 CH6 : IC1555-pin 17 (LBLK)
V : 1V/div H : 200nsec/div



50 X DRIVE, 50 Y DRIVE ASSY

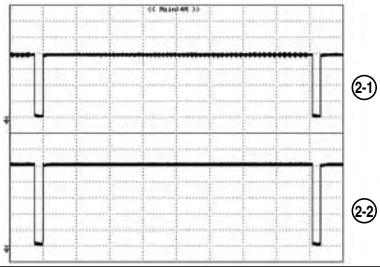
1 Drive output signal (1 field, Color-bar)

1-1 **CH1 : R1277 (XPSUS) - K1203 (SUSGND)**
V : 100V/div H : 2msec/div (X DRIVE Assy)
1-2 **CH2 : K2701 (SCANOUT) - K2330 (SUSGND)**
V : 100V/div H : 2msec/div (SCAN A Assy)
1-3 **CH3 : F2301 (YPSUS) - K2330 (SUSGND)**
V : 100V/div H : 2msec/div (Y DRIVE Assy)



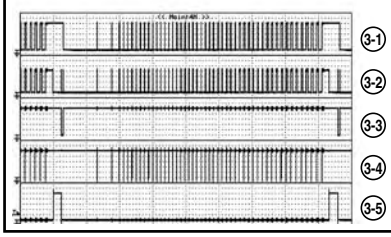
2 X Drive pulse control signal (Color-bar)

2-1 **CH1 : K1009 (XSUS-MSK) - K1001 (DGND)**
V : 1V/div H : 2msec/div (X DRIVE Assy)
2-2 **CH2 : K1005 (XNR-D) - K1001 (DGND)**
V : 1V/div H : 2msec/div (X DRIVE Assy)



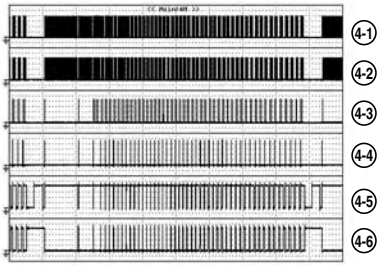
3 Y Drive pulse control signal (Color-bar)

3-1 **CH1 : K2007 (YNOFS) - K2002 (GND_D)**
V : 1V/div H : 2msec/div (Y DRIVE Assy)
3-2 **CH2 : K2005 (YSUS-MSK) - K2002 (GND_D)**
V : 1V/div H : 2msec/div (Y DRIVE Assy)
3-3 **CH3 : K2008 (YNRST) - K2002 (GND_D)**
V : 1V/div H : 2msec/div (Y DRIVE Assy)
3-4 **CH4 : K2006 (SOFT-D) - K2002 (GND_D)**
V : 1V/div H : 2msec/div (Y DRIVE Assy)
3-5 **CH5 : K2023 (YPR-U) - K2002 (GND_D)**
V : 1V/div H : 2msec/div (Y DRIVE Assy)



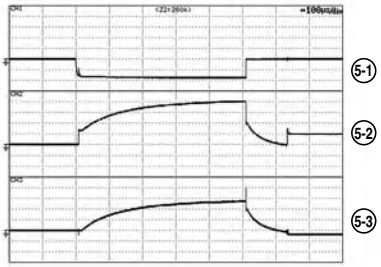
4 Scan control signal (1 field, Color-bar)

4-1 **CH1 : TP2001 (LE) - K2002 (GND-D)**
V : 1V/div H : 2msec/div (X DRIVE Assy)
4-2 **CH2 : TP2008 (CLK) - K2002 (GND-D)**
V : 1V/div H : 2msec/div (X DRIVE Assy)
4-3 **CH3 : TP2003 (SI-H) - K2002 (GND-D)**
V : 1V/div H : 2msec/div (X DRIVE Assy)
4-4 **CH4 : TP2004 (CLR) - K2002 (GND-D)**
V : 1V/div H : 2msec/div (X DRIVE Assy)
4-5 **CH5 : TP2005 (OC2) - K2002 (GND-D)**
V : 1V/div H : 2msec/div (X DRIVE Assy)
4-6 **CH6 : TP2006 (OC1) - K2002 (GND-D)**
V : 1V/div H : 2msec/div (X DRIVE Assy)



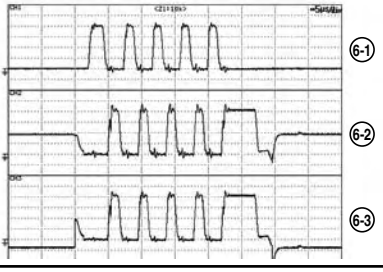
5 Reset pulse signal

5-1 **CH1 : R1277 (XPSUS) - K1203 (SUSGND)**
V : 100V/div H : 100µsec/div (X DRIVE Assy)
5-2 **CH2 : K2701 (SCANOUT) - K2330 (SUSGND)**
V : 100V/div H : 100µsec/div (SCAN A Assy)
5-3 **CH3 : F2301 (YPSUS) - K2330 (SUSGND)**
V : 100V/div H : 100µsec/div (Y DRIVE Assy)



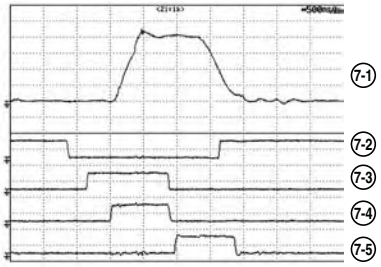
6 Sustain pulse signal (1 sub, sub field)

6-1 **CH1 : R1277 (XPSUS) - K1203 (SUSGND)**
V : 50V/div H : 5µsec/div (X DRIVE Assy)
6-2 **CH2 : K2701 (SCANOUT) - K2330 (SUSGND)**
V : 50V/div H : 5µsec/div (SCAN A Assy)
6-3 **CH3 : F2301 (YPSUS) - K2330 (SUSGND)**
V : 50V/div H : 5µsec/div (Y DRIVE Assy)



7 Sustain signal

7-1 **CH1 : F2301 (YPSUS) - K2330 (SUSGND)**
V : 50V/div H : 500nsec/div (Y DRIVE Assy)
7-2 **CH2 : K2004 (YSUS-G) - K2002 (DGND)**
V : 5V/div H : 500nsec/div (Y DRIVE Assy)
7-3 **CH3 : K2011 (YSUS-U) - K2002 (DGND)**
V : 5V/div H : 500nsec/div (Y DRIVE Assy)
7-4 **CH4 : K2009 (YSUS-B) - K2002 (DGND)**
V : 5V/div H : 500nsec/div (Y DRIVE Assy)
7-5 **CH5 : K2010 (YSUS-D) - K2002 (DGND)**
V : 5V/div H : 500nsec/div (Y DRIVE Assy)



5. PCB PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω → 56 x 10^1 → 561 ..... RD1/4PU 5 6 1 J
47k Ω → 47 x 10^3 → 473 ..... RD1/4PU 4 7 3 J
0.5 Ω → R50 ..... RN2H R 5 0 K
1 Ω → 1R0 ..... RS1P 1 R 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω → 562 x 10^1 → 5621 ..... RN1/4PC 5 6 2 1 F

■ LIST OF WHOLE PCB ASSEMBLIES

Mark	Symbol and Description	PDP-506PE /WYVI	PDP-506PU /KUCXC
NSP	1..PANEL CHASSIS (506) ASSY	AWU1143	AWU1143
NSP	2..50 ADDRESS ASSY	AWV2208	AWV2208
NSP	2..50 SCAN ASSY	AWV2211	AWV2211
NSP	3..50 SCAN A ASSY	AWW1026	AWW1026
NSP	3..50 SCAN B ASSY	AWW1027	AWW1027
NSP	1..50 X DRIVE ASSY	AWV2257	AWV2209 or AWV2257
	2..50 X DRIVE ASSY	AWW1075	AWW1020 or AWW1075
	2..SUS CLAMP 1 ASSY	AWW1022	AWW1022
	2..SUS CLAMP 2 ASSY	AWW1023	AWW1023
	1..50 Y DRIVE ASSY	AWV2258	AWV2210 or AWV2258
NSP	1..HD DIGITAL ASSY	AWV2202	AWV2202
	2..HD DIGITAL ASSY	AWW1028	AWW1028
	2..HD LED ASSY	AWW1029	AWW1029
	2..HD IR ASSY	AWW1030	AWW1030
	1..HD AUDIO ASSY	AWV2203	AWV2203
⚠	1..POWER SUPPLY UNIT	AXY1112	AXY1112

50 X DRIVE ASSY

AWW1075 and AWW1020 are constructed the same except for the following :

Mark	Symbol and Description	AWW1075	AWW1020
	IC1101	AXF1142	AXF1155
	C1101	ACG1112 (0.22U/250V)	ACG1088 (0.1U/250V)
	C1106-C1110	Not used	ACE1178
	C1112, C1113 (0.22U/250V)	ACG1112	Not used
	C1161-C1164, C1166	ACE1168	Not used
	C1297, C1298 (3300p/630V)	ACG1129	Not used

50 Y DRIVE ASSY

AWV2258 and AWV2210 are constructed the same except for the following :

Mark	Symbol and Description	AWV2258	AWV2210
	IC2101	AXF1142	AXF1155
	C2103	ACG1112 (0.22U/250V)	ACG1088 (0.1U/250V)
	C2107, C2108 (0.22U/250V)	ACG1112	Not used
	C2131-C2134, C2136	ACE1168	ACE1178
	C2271	ACG1124 (0.1U/100V)	ACG1118 (0.33U/100V)
	C2272 (0.1U/100V)	ACG1124	Not used

■ PCB PARTS LIST FOR PDP-506PE/WYVI UNLESS OTHER WISE NOTED

Mark	No.	Description	Part No.
		50 ADDRESS ASSY	
		[50 ADR LOGIC BLOCK]	
		SEMICONDUCTORS	
	IC1501		PEE002A
		COILS AND FILTERS	
	L1504	CHIP SOLID INDUCTOR	QTL1013
		CAPACITORS	
	C1501,C1502		CKSRYB105K6R3
	C1509,C1510		CKSSYB102K50
	C1503-C1507,C1551-C1555		CKSSYF104Z16
		RESISTORS	
	R1530,R1531		RS1/16S0R0J
	R1505-R1509		RS1/16SS1000F
	Other Resistors		RS1/16SS###J
		OTHERS	
	CN1501	40P CONNECTOR	AKM1217
	CN1502	PH CONNECTOR 4P	AKM1290
		[50 ADR RESONANCE BLOCK]	
		SEMICONDUCTORS	
	IC1601,IC1602		TND307TD
	Q1613		2SA1163
	Q1614-Q1616		HAT1110R
	Q1606,Q1608,Q1611		QSZ2
	Q1612		RN1901
	Q1601-Q1605		SP8M41
	D1612		1SS302
	D1625-D1629		1SS355
	D1631-D1650		EP05FA20
	D1601,D1605,D1607,D1610,D1613		UDZS15(B)
	D1616,D1620,D1622		UDZS15(B)
		COILS AND FILTERS	
	L1601-L1605	SMD COIL	ATH1163
		CAPACITORS	
	C1609 (0.1U/100V)		ACG1098
	C1601,C1606,C1610 (0.068U/100V)		ACG1123
	C1611,C1614 (0.068U/100V)		ACG1123
	C1602-C1605 (56UF/80V)		ACH1405
	C1613		CKSRYB104K25
	C1619		CKSYB105K16
		RESISTORS	
	R1606,R1611,R1613,R1621		RS1/16SS###J
	Other Resistors		RS1/16S###J
		50 SCAN A ASSY	
		SEMICONDUCTORS	
	IC2701-IC2706		AN16025A
	D2701-D2707		1SS355
		CAPACITORS	
	C2701,C2711,C2721 (0.1U/250V)		ACG1088
	C2731,C2741,C2751 (0.1U/250V)		ACG1088
	C2710,C2720,C2730,C2740,C2750		CCSRCH181J50
	C2760		CCSRCH181J50
	C2708,C2709,C2718,C2719		CCSRCH331J50
	C2728,C2729,C2738,C2739		CCSRCH331J50
	C2748,C2749,C2758,C2759		CCSRCH331J50
	C2705-C2707,C2715-C2717		CCSRCH390J50
	C2725-C2727,C2735-C2737		CCSRCH390J50
	C2745-C2747,C2755-C2757		CCSRCH390J50
	C2703,C2713,C2723,C2733,C2743		CKSRYB105K6R3
	C2753		CKSRYB105K6R3
		RESISTORS	
	R2705,R2710,R2713,R2716,R2719		RAB4C221J
	R2722		RAB4C221J
	Other Resistors		RS1/16S###J
		OTHERS	
	CN2702	PH CONNECTOR 3P	AKM1274
	CN2701	13P BRIDGE CONNECTOR	AKP1261
		50 SCAN B ASSY	
		SEMICONDUCTORS	
	IC2801-IC2806		AN16025A
	IC2807		TC7SH08FUS1
	D2801-D2807		1SS355
		CAPACITORS	
	C2801,C2811,C2821 (0.1U/250V)		ACG1088
	C2831,C2841,C2851 (0.1U/250V)		ACG1088
	C2810,C2820,C2830,C2840,C2850		CCSRCH181J50
	C2860		CCSRCH181J50
	C2808,C2809,C2818,C2819		CCSRCH331J50
	C2828,C2829,C2838,C2839		CCSRCH331J50
	C2848,C2849,C2858,C2859		CCSRCH331J50
	C2805-C2807,C2815-C2817		CCSRCH390J50
	C2825-C2827,C2835-C2837		CCSRCH390J50
	C2845-C2847,C2855-C2857		CCSRCH390J50
	C2803,C2813,C2823,C2833,C2843		CKSRYB105K6R3
	C2853,C2861		CKSRYB105K6R3
		RESISTORS	
	R2803,R2808,R2811,R2814,R2817		RAB4C221J
	R2820		RAB4C221J
	Other Resistors		RS1/16S###J
		OTHERS	
	CN2802	PH CONNECTOR 3P	AKM1274
	CN2801	13P BRIDGE CONNECTOR	AKP1261
		50 X DRIVE ASSY	
		[50X LOGIC BLOCK]	
		SEMICONDUCTORS	
	IC1001		TC74ACT541FT
	IC1002		TC74VHC00FTS1

Mark No.	Description	Part No.
CAPACITORS		
C1003		CEHAT470M16
C1001,C1002		CKSRYB104K16
RESISTORS		
R1001,R1003		RAB4C470J
R1008,R1009		RAB4C472J
Other Resistors		RS1/16S###J
OTHERS		
CN1001	18P FFC CONNECTOR	VKN1310
[50X RESONANCE BLOCK]		
SEMICONDUCTORS		
IC1101		AXF1142
IC1141		BA10393F
Q1141		2SC4116
D1101-D1105		D1FL40
COILS AND FILTERS		
L1103,L1104	CHOKE COIL	ATH1119
L1101,L1102	CHOKE COIL	ATH1187
L1105,L1106	CHOKE COIL	ATH1187
CAPACITORS		
C1161-C1164,C1116 (3.3U/250V)		ACE1168
C1101,C1112,C1113 (0.22U/250V)		ACG1112
C1121 (470p/630V)		ACG1126
C1105		CCG1186
C1141,C1142,C1144,C1145		CKSRYB104K16
C1102,C1146		CKSRYB105K6R3
C1103		CKSYB105K25
RESISTORS		
R1101		ACN1168
R1142,R1146		RS1/10S1003F
R1122,R1123		RS1/10S104J
R1148,R1150		RS1/16S5601F
R1151,R1155		RS1/16S6801F
R1106,R1121		RS2MMF100J
Other Resistors		RS1/16S###J
[50X SUS BLOCK]		
SEMICONDUCTORS		
IC1202		AXF1140
IC1201		MM1565AF
IC1252		PS9117
IC1251		TND301S
IC1271		TND307TD
Q1251		2SC2412K
Q1272		2SK3325-Z
D1281		1SS302
D1201		1SS355
D1252		CRH01
D1282		UDZS16(B)
D1251		UDZS5R6(B)
COILS AND FILTERS		
L1204,L1211	INDUCTOR	ATH1186
F1201	INDUCTOR	CTF1449
L1201,L1205,L1231		LFEA100J

Mark No.	Description	Part No.
CAPACITORS		
C1214-C1217		ACE1178
C1212,C1213		ACH1423
C1231		CEHAT101M10
C1206		CEHAT101M25
C1283		CEHAT2R2M2E
C1208		CEHAT470M16
C1222,C1272		CEHAT470M25
C1221		CKSRYB105K6R3
C1204,C1207,C1223,C1251,C1253		CKSRYF104Z50
C1273		CKSRYF104Z50
C1220		CKSYB105K25
RESISTORS		
R1204		ACN1166
R1213		ACN1168
R1276,R1277		RS3LMF470J
Other Resistors		RS1/16S###J
OTHERS		
KN1201-KN1206	GROUND PLATE	ANK-142
KN1208-KN1211	GROUND PLATE	ANK-142
CN1202	6P TOP POST	B6B-EH
CN1201	8P TOP POST	B8B-EH
[50X D-D CON BLOCK]		
SEMICONDUCTORS		
IC1321		PS2701A-1(L)
IC1326		TA76431FR
Q1324		2SA1037K
Q1302		2SC4081
Q1301,Q1323		2SD1898
Q1321,Q1325,Q1351		HN1C01FU
D1303,D1324		1SS301
D1304,D1307,D1325,D1328		1SS355
D1301,D1302,D1326,D1327		CRH01
D1321		D1FK60
D1329,D1330		UDZS4R7(B)
D1306,D1323,D1331		UDZS5R1(B)
COILS AND FILTERS		
⚠T1301	SWITCHING TRANS.	ATK1159
⚠T1321	SWITCHING TRANS.	ATK1160
CAPACITORS		
C1325		ACH1428
C1326		CEHAT100M50
C1302,C1321		CEHAT101M25
C1301,C1303,C1323		CKSRYB103K50
C1304,C1306,C1327		CKSRYB104K16
C1307,C1324		CKSYB105K25
RESISTORS		
R1337		RAB4C472J
R1321,R1322,R1326,R1339		RS1/10S224J
VR1321		CCP1392
Other Resistors		RS1/16S###J

Mark No.	Description	Part No.
SUS CLAMP 1 ASSY		
SEMICONDUCTORS		
D1631		DF20L60U
CAPACITORS		
C1632		ACE1179
OTHERS		
KN1632	GROUND PLATE	ANK-142
CN1631	3P TOP POST	B3B-EH
KN1631	WRAPPING TERMINAL	VNF1084
SUS CLAMP 2 ASSY		
SEMICONDUCTORS		
D1641		DF20L60U
CAPACITORS		
C1642		ACE1179
OTHERS		
KN1642	GROUND PLATE	ANK-142
CN1641	3P TOP POST	B3B-EH
KN1641	WRAPPING TERMINAL	VNF1084
50 Y DRIVE ASSY		
[50Y LOGIC BLOCK]		
SEMICONDUCTORS		
IC2002		TC74ACT540FT
IC2001,IC2004		TC74ACT541FT
IC2003,IC2005		TC74VHC08FTS1
CAPACITORS		
C2003		CEHAT470M16
C2001,C2002,C2004-C2006		CKSSYB104K10
RESISTORS		
R2003,R2006		RAB4C101J
R2001,R2002,R2017,R2021		RAB4C470J
R2004,R2005,R2019,R2020		RAB4C472J
Other Resistors		RS1/16S###J
OTHERS		
CN2001	40P CONNECTOR	AKM1217
[50Y RESONANCE BLOCK]		
SEMICONDUCTORS		
IC2101		AXF1142
IC2141		BA10393F
Q2141		2SC4081
D2101-D2105		D1FL40
COILS AND FILTERS		
L2103,L2104	CHOKE COIL	ATH1119
L2101,L2102	CHOKE COIL	ATH1187
L2105,L2106	CHOKE COIL	ATH1187
CAPACITORS		
C2131-C2134,C2136 (3.3U/250V)		ACE1168
C2103,C2107,C2108 (0.22U/250V)		ACG1112
C2104 (470p/630V)		ACG1126
C2106		CCG1186
C2101,C2145		CKSRYB105K6R3
C2141,C2143,C2144		CKSSYB104K10
C2102		CKSYB105K25
RESISTORS		
R2101		ACN1174
R2142,R2143		RS1/10S1003F
R2103,R2107		RS1/10S104J
R2146,R2149		RS1/16S5601F
R2147,R2151		RS1/16S6801F
R2102		RS2MMF100J
R2108		RS3LMF100J
Other Resistors		RS1/16S###J
[50Y SUS BLOCK]		
SEMICONDUCTORS		
IC2252,IC2253		AXF1141
IC2350		MM1565AF
IC2250		PS9117
IC2231,IC2251		TND301S
IC2203,IC2221		TND307TD
Q2202		2SA2142
Q2250		2SC4081
Q2290		2SK3050
Q2221		2SK3325-Z
Q2280,Q2281		2SK3399
D2233		1SS301
D2213		1SS302
D2203,D2212,D2351		1SS355
D2202,D2204,D2205,D2234		CRH01
D2251,D2252,D2272		CRH01
D2211		D1FK60
D2232,D2271		UDZS16(B)
D2250		UDZS5R6(B)
COILS AND FILTERS		
L2353	INDUCTOR	ATH1186
F2301-F2320	FERRITE BEAD	ATX1055
F2352	INDUCTOR	CTF1449
L2350,L2351,L2354		LFEA100J
CAPACITORS		
C2330,C2335,C2341,C2342		ACE1178
C2231 (0.33U/100V)		ACG1118
C2271,C2272 (0.1U/100V)		ACG1124
C2336,C2337		ACH1423
C2270		ACH1426
C2226		ACH1427
C2207		CCSRCH102J50
C2355,C2369		CEHAT101M10
C2357		CEHAT470M16
C2208,C2221,C2339,C2364		CEHAT470M25
C2356		CKSRYB104K16
C2353,C2358,C2359		CKSRYB105K6R3
C2363		CKSRYB473K16
C2209,C2222,C2230,C2252		CKSRYF104Z50
C2250		CKSSYB104K10
C2354,C2360		CKSYB105K25

Mark No.	Description	Part No.
RESISTORS		
R2352		ACN1166
R2304		ACN1174
R2360,R2362		ACN1178
R2277-R2279,R2281		ACN1241
R2210,R2211		RS1/10S151J
R2290		RS1MMF331J
R2222,R2224		RS2MMF5R6J
R2203		RS3LMF821J
Other Resistors		RS1/16S###J
OTHERS		
KN2350,KN2352	GROUND PLATE	ANK-142
KN2354	GROUND PLATE	ANK-142
KN2356,KN2357	GROUND PLATE	ANK-142
KN2359-KN2363	GROUND PLATE	ANK-142
CN2351,CN2352	KR CONNECTOR	B4B-PH-K
CN2350	9P TOP POST	B9B-EH
[50Y SCAN BLOCK]		
SEMICONDUCTORS		
IC2403,IC2405,IC2406,IC2408		PS9117
IC2401		PS9851-2(P)
IC2402,IC2407		TC74ACT540FT
COILS AND FILTERS		
L2401-L2403		LFEA100J
CAPACITORS		
C2404,C2411		ACH1413
C2401,C2407,C2414		CEHAT101M10
C2402,C2403,C2405,C2408-C2410		CKSSYB104K10
C2412		CKSSYB104K10
RESISTORS		
R2407,R2421		RAB4C220J
R2402,R2409		RS1/10S0R0J
Other Resistors		RS1/16S###J
OTHERS		
CN2401	15P BRIDGE CONNECTOR	AKM1200
CN2402	15P BRIDGE CONNECTOR	AKM1200
[50Y VH D-D CON BLOCK]		
SEMICONDUCTORS		
IC2531		BA10358F
IC2502		MIP2E3DMC
IC2503		PS2701A-1(L)
IC2534,IC2535		TA76431FR
Q2533		2SC2412K
Q2531		2SC3425
Q2532		2SD2568
Q2511		HN1C01FU
D2534		1SS355
D2522,D2524		CRH01
D2523,D2532		D1FK60
D2533		UDZS33(B)
D2536		UDZS4R7(B)
D2530,D2531		UDZS8R2(B)
COILS AND FILTERS		
⚠T2503	CONVERTER TRANS.	ATK1158
L2501		LFEA101J

Mark No.	Description	Part No.
CAPACITORS		
C2531		ACE1177
C2516		ACH1360
C2532		ACH1425
C2513		ACH1428
C2520		CEHAT101M16
C2515		CEHAT101M25
C2528		CEHAT221M16
C2514,C2525,C2534		CKSRYB104K16
C2521,C2533,C2535		CKSRYB104K25
RESISTORS		
R2553		RAB4C472J
R2558		RS1/10S0R0J
R2533,R2556		RS1/10S104J
R2534,R2535,R2541		RS1/10S2203F
R2548		RS1/16S1003F
R2550		RS1/16S1802F
R2549,R2557		RS1/16S4702F
R2542,R2545		RS1/16S5601F
VR2503		CCP1390
VR2531		CCP1392
Other Resistors		RS1/16S###J
[50Y D-D CON BLOCK]		
SEMICONDUCTORS		
IC2602		BA10358F
IC2601,IC2603,IC2606		PS2701A-1(L)
IC2605,IC2614		TA76431FR
Q2610		2SA1163
Q2601,Q2609		2SA1576A
Q2608		2SA2005
Q2607		2SC2713
Q2612		2SC4081
Q2605,Q2606		2SD1898
Q2603,Q2604,Q2611		DTC143EUA
Q2602,Q2613,Q2641		HN1C01FU
D2611		1SS226
D2604,D2612		1SS301
D2602,D2613-D2615		1SS355
D2601,D2603,D2609,D2618		CRH01
D2610		D1FL40
D2617		UDZS15(B)
D2607,D2608		UDZS4R7(B)
D2605		UDZS5R1(B)
D2616		UDZS5R6(B)
COILS AND FILTERS		
⚠T2602	CONVERTER TRANS.	ATK1156
⚠T2601	SWITCHING TRANS.	ATK1161
CAPACITORS		
C2608,C2610		CEHAT101M25
C2613		CEHAT221M25
C2606		CEHAT221M6R3
C2607		CKSRYB102K50
C2605,C2612,C2614		CKSRYB103K50
C2601,C2604,C2609		CKSRYB104K16
C2602,C2615		CKSRYB105K6R3
C2603		CKSRYF104Z50
C2611		CKSSYB104K10

Mark No.	Description	Part No.
	RESISTORS	
	R2613	RAB4C472J
	R2641,R2642	RS1/10S224J
A	R2629	RS1/16S1002F
	R2625,R2626	RS1/16S1501F
	R2608,R2612,R2630,R2632,R2635	RS1/16S4701F
	R2618	RS1/16S4702F
	R2636	RS1/16S5601F
	R2652	RS1/16S6801F
	R2627	RS3LMF151J
	VR2601	CCP1390
	Other Resistors	RS1/16S###J
B		
	HD DIGITAL ASSY	
	OTHERS	
	DD CON UNIT	AXY1116
	REMOTE RECEIVER UNIT	RPM7240-H4
	HD DIGITAL ASSY	
	[TMDS RX BLOCK]	
	SEMICONDUCTORS	
	IC3002	BA8274F
C	IC3001	SII1169CTU
	IC3004	SN74AHC32PW
	Q3009	2SC4081
	Q3007	DTA143EUA
	Q3004	DTC124EUA
	Q3005	DTC143EUA
	Q3002,Q3006,Q3008	RN1901
	Q3003	RN2901
	D3001,D3002	1SS355
	D3012	DA204U
	D3007-D3011	RB751V-40
D	D3003	UDZS6R8(B)
	COILS AND FILTERS	
	F3005 CHIP SOLID INDUCTOR	QTL1011
	L3003 CHIP SOLID INDUCTOR	QTL1013
	CAPACITORS	
	C3030	ACH1357
	C3034,C3036,C3038,C3040,C3042	ACH1396
	C3003,C3005,C3009,C3014,C3019	CCSRCH331J50
	C3046	CCSRCH470J50
	C3044,C3045	CCSSCH101J50
E	C3001,C3008,C3011,C3020,C3022	CCSSCH820J50
	C3025-C3027	CCSSCH820J50
	C3018,C3021,C3023,C3024	CKSRYF105Z10
	C3015-C3017,C3028,C3029	CKSSYF104Z16
	C3031,C3032,C3035,C3037,C3039	CKSSYF104Z16
	C3041,C3043	CKSSYF104Z16
	RESISTORS	
	R3007	RAB4C220J
	R3008-R3013	RAB4C470J
	R3018	RAB4C472J
F	R3021	RS1/16S3900F
	Other Resistors	RS1/16S###J

Mark No.	Description	Part No.
	OTHERS	
	CN3003 PH CONNECTOR 6P	AKM1277
	CN3004 PH CONNECTOR 12P	AKM1298
	JA3001 DVI CONNECTOR	AKP1276
	JA3002 MDR CONNECTOR	AKP1277
	[MODULE UCOM BLOCK]	
	SEMICONDUCTORS	
	IC3156	BR24L04FJ-W
	IC3151	M30620FCPGP-U5C
	IC3157	M62334FP
	IC3158	MM1522XU
	IC3155	SN74AHC08PW
	IC3152,IC3153	SN74AHC541PW
	IC3160	TC74VHC123AFTS1
	IC3159	TC7W126FU
	Q3151	2SJ461A
	D3156,D3159,D3161-D3163	1SS355
	D3151,D3152,D3154,D3155,D3158	DAN202U
	CAPACITORS	
	C3151	ACH1357
	C3164	CCSSCH101J50
	C3171,C3172,C3180	CKSRYB105K6R3
	C3154	CKSSYB102K50
	C3152,C3153,C3155-C3158	CKSSYF104Z16
	C3160-C3163,C3165,C3166,C3170	CKSSYF104Z16
	RESISTORS	
	R3160,R3171,R3176	RAB4C101J
	R3174	RAB4C103J
	Other Resistors	RS1/16S###J
	OTHERS	
	⚠X3151 CERAMIC RESONATOR	ASS1178
	[PANEL FLASH BLOCK]	
	SEMICONDUCTORS	
	IC3301	MBM29PL160TD75TN
	IC3304	PST3610UR
	IC3302,IC3305	PST3628UR
	IC3303	SN74AHC08PW
	Q3302	HN1C01FU
	Q3301	RN1901
	CAPACITORS	
	C3311	CCSRCH470J50
	C3317	CCSRCH471J50
	C3304,C3307,C3309	CKSRYB472K50
	C3305,C3310	CKSSYB102K50
	C3315	CKSSYB104K10
	C3301-C3303,C3306,C3308,C3316	CKSSYF104Z16
	RESISTORS	
	All Resistors	RS1/16S###J
	OTHERS	
	⚠X3302 CRYSTAL OSCILLATOR	ASS1188

Mark No.	Description	Part No.
[SQ ASIC BLOCK]		
SEMICONDUCTORS		
IC3401		PEG122C
COILS AND FILTERS		
F3401,F3402	EMI FILTER	CCG1162
L3401-L3403	CHIP SOLID INDUCTOR	QTL1013
CAPACITORS		
C3402,C3419 (100UF/6.3V)		ACH1396
C3425,C3441 (100UF/6.3V)		ACH1396
C3414-C3416,C3426-C3438		CKSRYF105Z10
C3403-C3410,C3412,C3413		CKSSYF104Z16
C3417,C3418,C3420-C3424		CKSSYF104Z16
C3439,C3440,C3442-C3449		CKSSYF104Z16
RESISTORS		
R3402,R3412		RAB4C101J
R3405-R3407,R3409,R3410		RAB4C220J
R3416,R3417		RAB4C220J
R3425		RS1/16S5601F
Other Resistors		RS1/16S###J
[ADDRESS BLOCK]		
SEMICONDUCTORS		
D3501,D3502		DAN202U
CAPACITORS		
C3501-C3504		CKSSYB102K50
RESISTORS		
R3521,R3522,R3525		RAB4C101J
R3524		RAB4C222J
R3519,R3520		RAB4C472J
Other Resistors		RS1/16S###J
OTHERS		
CN3501-CN3504	40P CONNECTOR	AKM1217
CN3506	40P CONNECTOR	AKM1217
CN3505		VKN1310
[DIGITAL DD CON BLOCK]		
CAPACITORS		
C3609		CKSSYF104Z16
RESISTORS		
R3611		RAB4C101J
Other Resistors		RS1/16S###J

HD LED ASSY

SEMICONDUCTORS		
D1671		SML-311UT
D1672		SML512BC4T
COILS AND FILTERS		
⚠F1671-F1673	CHIP SOLID INDUCTOR	QTL1011

HD IR ASSY

SEMICONDUCTORS		
Q1681		2SC4116
D1681		DA204U
CAPACITORS		
C1681		CEVW470M6R3
C1682		CKSRYB103K50
C1683		CKSSYB102K50
C1684		CKSSYF104Z16
RESISTORS		
All Resistors		RS1/16S###J
OTHERS		
CN1681	3P L TYPE PLUG	KM200NA3L
V1681	REMOTE RECEIVER UNIT	RPM7240-H4

HD AUDIO ASSY

OTHERS		
J3901	1P BOARD IN WIRE	ADX3123
[AUDIO AMP BLOCK]		
SEMICONDUCTORS		
IC3754		BR24L02FJ-W
IC3751		LA4625
IC3752		NJM7809FA
IC3753		NJW1183L
Q3751,Q3754,Q3755,Q3757		2SA1576A
Q3756,Q3759		2SC4081
Q3758,Q3760		DTC124EUA
CAPACITORS		
C3797,C3808,C3812,C3814		CEAT1R0M50
C3775,C3777,C3788,C3790,C3791		CEHAT100M50
C3799		CEHAT100M50
C3761,C3764,C3786,C3798		CEHAT101M16
C3766,C3780,C3783-C3785		CEHAT1R0M50
C3762		CEHAT220M50
C3752,C3753,C3819,C3820		CEHAT2R2M50
C3759		CEHAT331M16
C3757		CEHAT471M25
C3755		CEHAT472M25
C3763		CEHATR47M50
C3754,C3805		CFTLA103J50
C3767,C3770,C3772-C3774		CFTLA104J50
C3781,C3782,C3789,C3792-C3795		CFTLA104J50
C3806,C3807,C3813		CFTLA104J50
C3810		CFTLA223J50
C3778		CFTLA334J50
C3758,C3760,C3796		CKSRYB103K50
C3769,C3815		CKSRYB222K50
C3779		CKSRYB822K50
C3816		CKSRYF104Z16
RESISTORS		
R3768-R3770,R3782		RD1/2MMF2R2J
R3752		RD1/2MMF4R7J
Other Resistors		RS1/16S###J

Mark	No.	Description	Part No.
		OTHERS	
	CN3752	12P PH CONNECTOR	AKM1335
	3771	AUDIO HEATSINK	ANH1636
A	CN3751	3P TOP POST (VH)	B3P-VH
	3772-3775	SCREW	VBB30P100FNI
	KN3751	WRAPPING TERMINAL	VNF1084
	KN3752	WRAPPING TERMINAL	VNF1084
		[ST TERMINAL BLOCK]	
		COILS AND FILTERS	
	⚠L3901,L3902	LINE FILTER	ATF1206
		CAPACITORS	
B	⚠C3906,C3908,C3914,C3916		CCSRCH101J50
	C3903,C3911		CKSRYB332K50
	C3904,C3912		CKSRYF473Z50
		RESISTORS	
	R3901-R3904		RD1/2MMF100J
		OTHERS	
	JA3901	SPEAKER TERMINAL	AKE1061

C

POWER SUPPLY UNIT

POWER SUPPLY Unit has no service part.

D

E

F

6. ADJUSTMENT

1. At shipment, the unit is adjusted to its best conditions. Normally, it is not necessary to readjust even if an assembly is replaced. If the adjustment is shifted or if it becomes necessary to readjust because of part replacement, etc., perform the adjustment as described below.
2. Any value changed in Service/Factory mode will be stored in memory as soon as it is changed. Before readjustment, take note of the original values for reference in case you need to restore the original settings.
3. Use a stable AC power supply.

6.1 ADJUSTMENT REQUIRED WHEN THE SET IS REPAIRED OR REPLACED

■ When any of the following assemblies is replaced

POWER SUPPLY Unit	(Clear the history data on the number of power-ons.) Refer to "7.1.7 HOW TO CLEAR HISTORY DATA."
HD DIGITAL Assy	Writing of backup data is required. Refer to the "7.1.6 BACKUP WHEN THE MAIN UNIT IS ADJUSTED. "
50 X DRIVE Assy	No adjustment required
50 Y DRIVE Assy	No adjustment required
Service Panel	Refer to the "6.3 METHOD FOR REPLACING THE SERVICE PANEL ASSY."
Other assemblies	No adjustment required

■ When any part in the following assemblies is replaced

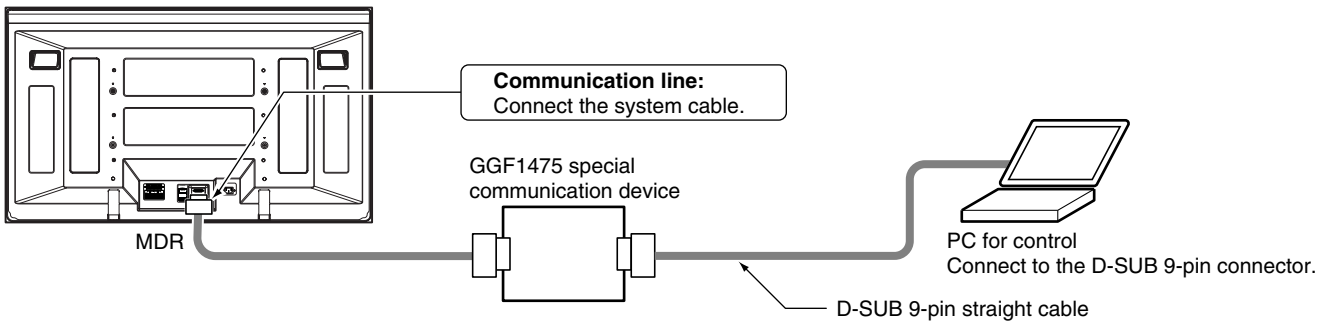
POWER SUPPLY Unit	The assembly must be replaced as a unit, and no part replacement is allowed.
HD DIGITAL Assy	No adjustment required
50 X DRIVE Assy	No adjustment required
50 Y DRIVE Assy	No adjustment required
Other assemblies	No adjustment required

6.2 RS-232C COMMAND

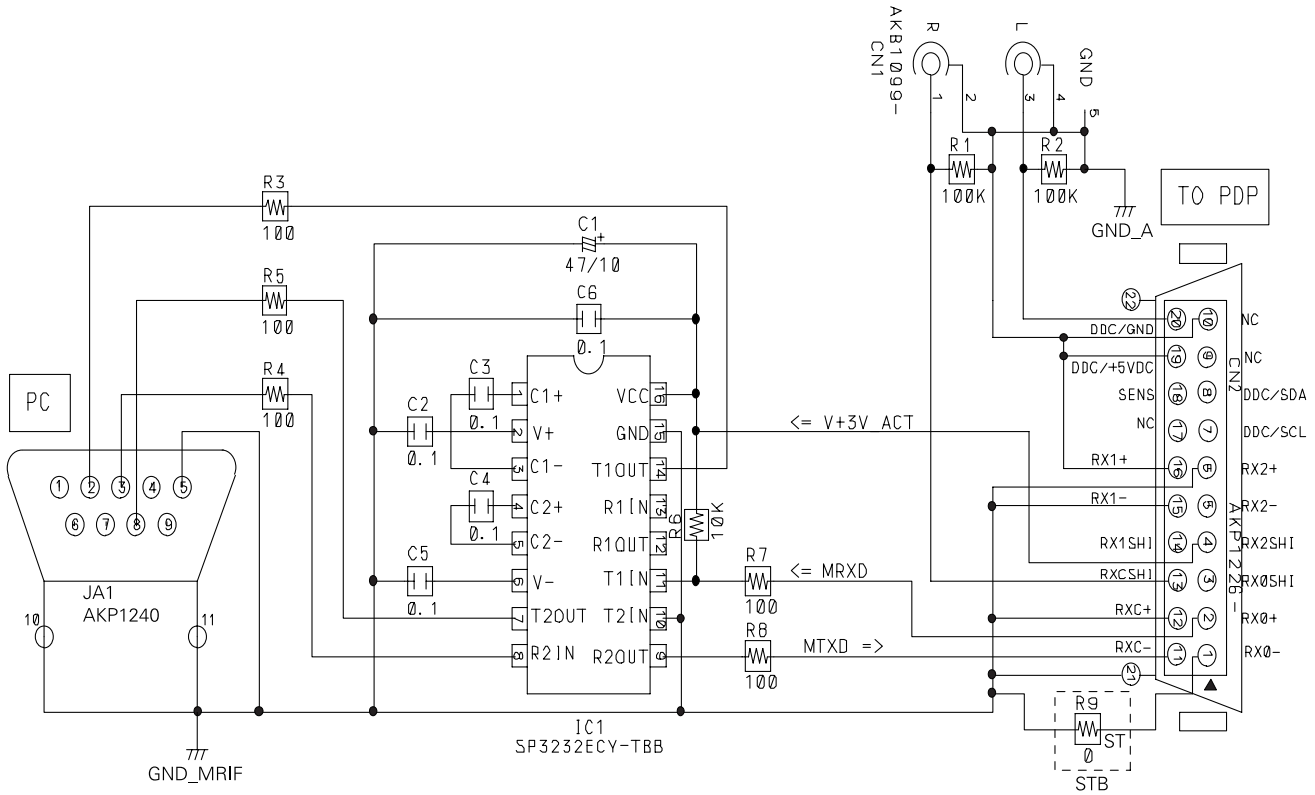
- The panel control items for the PDP-506PE, PU / PDP-436PE, PU systems can be controlled with the RS-232C commands by connecting a PC through the GGF1475 special communication device when the Media Receiver is not connected with the PDP.

Note: The special communication device for the PDP-503P cannot be used with this unit, because the control lines within the MDR cable are different.

1. Connection



• Schematic diagram of the special communication device



2. Command format

■ Communication protocol

Start bit : 1bit
Data : 8bit
Parity : 0 (none)
Stop bit : 1bit
Baud rate : 38400bps

■ Start and stop conditions

STX (start condition): 0x02
ETX (stop condition): 0x03

■ ID setting

No ID setting (corresponding to all ASCII codes)

■ Acknowledgement (ACK)

- Acknowledgement (ACK) will be sent back when the unit returns to Standby mode for the next command after the process of the received command is finished.
- The return data will be a received command in capital letters, but without an ID.

Example of communication: For a command listed on the command list

MR / External PC

STX	ID	Command	ETX
0x02	**	CBU	0x03

Returns from the PDP

STX	Command	ETX
0x02	CBU	0x03

- If a received command is not one listed on the command list, "ERR" (3 characters) will be sent back.

Example of communication: For a command that is not listed on the command list

MR / External PC

STX	ID	Command	ETX
0x02	**	AAA	0x03

Returns from the PDP

STX	Command	ETX
0x02	ERR	0x03

- If the operation of a received command is not possible in a certain status, "XXX" (3 characters) will be sent back.

Example of communication: If an adjustment command that gives an adjustment value out of the adjustable range is sent

MR / External PC

STX	ID	Adjustment Command	Adjustment Value	ETX
0x02	**	VOL	128	0x03

Returns from the PDP

STX	Command	ETX
0x02	XXX	0x03

■ Error process

If an error is generated between STX and ETX, a return signal will not be issued.

3. Definition of various commands

■ Simple-function command

A simple-function command orders an operation that will conclude by itself, and it consists of 3 characters.

Example of communication:

MR / External PC

STX	ID	Command	ETX
0x02	**	CPD	0x03

Returns from the PDP

STX	Command	ETX
0x02	CPD	0x03

■ Adjustment command and adjustment value

An adjustment command is accompanied by an adjustment value and orders a change in the adjustment value, such as for the contrast adjustment.

- Adjustment command + adjustment value => The attached parameter will be the adjustment value.
- The adjustment value to be attached to an adjustment command consists of 3 characters in decimal, in the range of 000 to 999.

Example of communication:

MR / External PC

STX	ID	Adjustment Command	Adjustment Value	ETX
0x02	**	CNT	128	0x03

Returns from the PDP

STX	Adjustment Command	Adjustment Value	ETX
0x02	CNT	128	0x03

- If the adjustment value of the received command is out of the adjustable range, "XXX" will be sent back, and the adjustment value will not be changed.
- If the adjustment value of the received command is the same as the current adjustment value, the adjustment value will be overwritten, and "XXX" will not be sent back.

■ Setup command and setup value

A setup command is accompanied by a setup value and orders a change in the setup value, such as for the mask setup.

- Setup command + setup value => The attached parameter will be the setup value.
- The setup value to be attached to a setup command consists of 3 characters in decimal, in the range of S00 to S99.

Example of communication:

MR / External PC

STX	ID	Adjustment Command	Adjustment Value	ETX
0x02	**	MKS	S02	0x03

Returns from the PDP

STX	Adjustment Command	Adjustment Value	ETX
0x02	MKS	S02	0x03

- If the setup value of the received command is out of the range, "XXX" will be sent back, and the setup value will not be changed.
- If the setup value of the received command is the same as the current setup value, the setup value will be overwritten, and "XXX" will not be sent back.

■ QUEST (acquiring status) command

If a QUEST command is received from the main unit's microcomputer, data for various adjustment values will be read from memory and sent back. The return data consist of the received command as an echo back, return data, and a checksum.

- Return data: A string of characters defined for each QUEST command is converted into ASCII codes and transmitted.
- The configuration and the data length of return data are defined for individual QUEST commands.

Example of communication:

MR / External PC

STX	ID	QST Command	ETX
0x02	**	QS1	0x03

Returns from the PDP

STX	QST Command	Return Data	Checksum	ETX
0x02	QS1	54AHM2**	7B	0x03

- Checksum (CS): A checksum is used for judging if any error exists in the data sent back from the panel. If an error is detected, it is possible to resend the QUEST command from the MR / External PC to try to acquire data again.

4. RS-232C command for module microcomputer

Command Name		Function		Effective only in Factory mode	Remarks
A					
ABL	***	ABL ADJUSTMENT	Adjusting the upper limit of the power	○	
AMT	S00	AUDIO MUTE OFF	Turning off the audio muting		
	S01	AUDIO MUTE ON	Turning on the audio muting		
APW	S00	APL WB FUNCTION:OFF	WB correction interlocked with APL: OFF	○	
	S01	APL WB FUNCTION:ON	WB correction interlocked with APL: ON	○	
B					
BAL	***	BALANCE ADJUSTMENT	Audio balance adjustment		
BAS	***	BASS ADJUSTMENT	Audio bass adjustment		
BCP		BACKUP COPY	Copying the backup data in the EEPROM	○	
C					
CBU		CLEAR BACKUP	Clearing backup data	○	
CHM		CLEAR HOUR METER	Clearing data of the hour meter	○	Used only when the panel is replaced
CPC		CLEAR POWER ON COUNT	Clearing power-on count data	○	Used only when the power unit is replaced
CPD		CLEAR POWER DOWN	Clearing power-down information	○	Used only when the panel is replaced
CPM		CLEAR PLUSE METER	Clearing data of the pulse meter	○	Used only when the panel is replaced
CSD		CLEAR SHUT DOWN	Clearing shutdown information	○	Used only when the panel is replaced
D					
DRV	S00	DRIVE OFF	Main power off		
	S01	DRIVE ON	Main power on		
E					
ESV	S00	POWER CONTROL NORMAL	Setting Power Consumption mode to 4-split normal curve		
	S01	POWER CONTROL MODE1	Setting Power Consumption mode to 2-split normal curve		
	S02	POWER CONTROL MODE2	Setting Power Consumption mode to 2-split power-saving curve		
	S10	POWER CONTROL NORMAL	Setting Power Consumption mode to 4-split normal curve (domestic)		
	S11	POWER CONTROL MODE1	Setting Power Consumption mode to 2-split normal curve (domestic)		
	S12	POWER CONTROL MODE2	Setting Power Consumption mode to 2-split power-saving curve (domestic)		
F					
FAJ		FINISH ADJUSTMENT	Determining the flag of the HD DIGITAL Assy adjustment in "adjustment is completed"	○	
FAN		FACTRY NO		○	
FAY		FACTRY YES	Entering Factory mode		Turning the mask setting off
FCS	S00	FOCUS OFF	Turning the FOCUS function off		
	S01	FOCUS ON	Turning the FOCUS function on		
M					
MKC	S00	MASK COMBINATION OFF	MASK off		
	S01	MASK COMBINATION 01	H ramp (slant 1) M	○	
	S02	MASK COMBINATION 02	H ramp (slant 4) M	○	
	S03	MASK COMBINATION 03	Slanting ramp M	○	
	S04	MASK COMBINATION 04	30 for aging	○	
	S05	MASK COMBINATION 05	05 for aging	○	
	S06	MASK COMBINATION 06	Erasing afterimage 1	○	
	S07	MASK COMBINATION 07	Erasing afterimage 2 (RGB: zigzag, V: reverse)	○	
	S08	MASK COMBINATION 08	White (change in luminance level)	○	
	S09	MASK COMBINATION 09	PEAK SEEK RASTER	○	
MKS	S00	MASK SINGLE OFF	MASK OFF		
	S01	MASK SINGLE 1	H ramp (slant 1)	○	
	S02	MASK SINGLE 2	H ramp (slant 4)	○	
	S03	MASK SINGLE 3	V ramp (slant 1)	○	
	S04	MASK SINGLE 4	Slanting ramp	○	

Command Name		Function		Effective only in Factory mode	Remarks
MKS	S05	MASK SINGLE 5	Window(Hi=870Lo=102)	O	
	S06	MASK SINGLE 6	Window(Hi=1023Lo=102)	O	
	S07	MASK SINGLE 7	Window(Hi=1023)	O	
	S08	MASK SINGLE 8	Window(Hi=1023)4%	O	
	S09	MASK SINGLE 9	Window(Hi=1023)1.25%	O	
	S10	MASK SINGLE 10	Window(1/7LINE)	O	
	S11	MASK SINGLE 11	STRIPE(MGT/GRN)	O	
	S12	MASK SINGLE 12	STRIPE(GRN/MGT)	O	
	S13	MASK SINGLE 13	B & W, checker (1 line)	O	
	S14	MASK SINGLE 14	B & W, checker (2 lines)	O	
	S15	MASK SINGLE 15	B & W, checker (4 lines)	O	
	S16	MASK SINGLE 16	B & W, checker (8 lines)	O	
	S17	MASK SINGLE 17	COLOR BAR	O	
	S18	MASK SINGLE 18	Slanting lines	O	
	S19	MASK SINGLE 19	Red & black, checker (1 line)	O	
	S20	MASK SINGLE 20	Red & black, checker (2 lines)	O	
	S21	MASK SINGLE 21	Red & black, checker (4 ines)	O	
	S22	MASK SINGLE 22	Red & black, checker (8 lines)	O	
	S23	MASK SINGLE 23	RGB zigzag, V reverse	O	
	S24	MASK SINGLE 24	SUS 2000 pulses (black raster)	O	
	S25	MASK SINGLE 25	Window(Hi=870Lo=102) PATTAN3	O	
	S26	MASK SINGLE 26	Window(Hi=1023Lo=102) PATTAN3	O	
	S27	MASK SINGLE 27	Window(Hi=1023) Pattern 3	O	
	S28	MASK SINGLE 28	Window(Hi=1023)4% Pattern 3	O	
	S29	MASK SINGLE 29	Window(Hi=1023)1.25% Pattern 3	O	
	S30	MASK SINGLE 30	Window(1/7LINE) Pattern 3	O	
	S51	MASK SINGLE 51	Raster - White	O	
	S52	MASK SINGLE 52	Raster - Red	O	
	S53	MASK SINGLE 53	Raster - Green	O	
	S54	MASK SINGLE 54	Raster - Blue	O	
	S55	MASK SINGLE 55	Raster - Black	O	
	S56	MASK SINGLE 56	Raster - Cyan	O	
	S57	MASK SINGLE 57	Raster - Magenta	O	
	S58	MASK SINGLE 58	Raster - Yellow	O	
	S59	MASK SINGLE 59	Raster - Cyan 460 :W	O	
	S60	MASK SINGLE 60	Raster - Green 774 :W	O	
	S61	MASK SINGLE 61	Raster - Gray 912 :W	O	
	S62	MASK SINGLE 62	Raster - Yellow egg color: W	O	
	S63	MASK SINGLE 63	Raster - Beige: W	O	
	S64	MASK SINGLE 64	Raster - Sky color: W	O	
	S65	MASK SINGLE 65	Raster - Pale purple: W	O	
	S66	MASK SINGLE 66	Raster - Magenta 54 :W	O	
	S67	MASK SINGLE 67	Raster - Red 588	O	
	S68	MASK SINGLE 68	Red 1023 + α	O	
	S69	MASK SINGLE 69	Green 1023 + α	O	
	S70	MASK SINGLE 70	Blue 1023 + α	O	
	S71	MASK SINGLE 71	Red 588 + α	O	
	S72	MASK SINGLE 72	Green 588 + α	O	
	S73	MASK SINGLE 73	Blue 588 + α	O	

Command Name		Function		Effective only in Factory mode	Remarks
MKS	S74	MASK SINGLE 74	Raster -Gray 512 (reservation)	○	
P					
PAV	S**	PANEL AV MODE	Switching panel functions interlocked with the AV selection		
PBH	***	PANEL BLUE HIGH	Panel white balance adjustment - Blue highlight	○	
PBL	***	PANEL BLUE LOW	Panel white balance adjustment - Blue low light	○	
PDM	S00	PD MUTE OFF	Passing PD signals to the Power SUPPLY Unit => Power-down		
	S01	PD MUTE ON	Not passing PD signals to the Power SUPPLY Unit => No power-down		
PFN		FACTORY NO	Factory mode: off	○	
PFS		PANEL FINAL SETUP	Setup at shipment	○	
PFY		FACTORY YES	Factory mode: on		
PGH	***	PANEL GREEN HIGH	Panel white balance adjustment - Green highlight	○	
PGL	***	PANEL GREEN LOW	Panel white balance adjustment - Green low light	○	
PGM	S**	PANEL GAMMA	Setting of the gamma table		
PMT	S00	MUTE OFF	Canceling panel muting		
	S01	MUTE ON	Panel muting		
POF		POWER OFF	Power off		
PON		POWER ON	Power on		
PPT	S00	PANEL PROTECT OFF	Panel protection: off	○	
	S01	PANEL PROTECT ON	Panel protection: on	○	
PUC	S00	PUER CINEMA:OFF	Pure cinema: off		
	S01	PUER CINEMA:STD	Pure cinema: standard		
	S02	PUER CINEMA:ADV	Pure cinema: advanced		
Q					
QAJ		QUEST ADJUSTMENT	Acquiring various adjustment values		
QIP		QUEST PANEL INFORMATION	Acquiring various input signal data		
QPD		QUEST POWER-DOWN	Acquiring logs of power-down points		
QPM		QUEST PULSE METER	Acquiring data of the pulse meter		
QPW		QUEST PANEL WHITE BALANCE	Acquiring panel white balance adjustment values		
QS1		QUEST STATUS 1	Acquiring data on the unit, such as the version of the program		
QS2		QUEST STATUS 2	Acquiring data on the status of the unit, such as temperature		
QSD		QUEST SHUT DOWN	Acquiring data on shutdown		
QSI		QUEST SIGNAL INFORMATION	Acquiring data related with signals		
R					
RBL	S**	PANEL REVISE BLUE LEVEL	Setting of blue level for panel degradation correction	○	
RGL	S**	PANEL REVISE GREEN LEVEL	Setting of green level for panel degradation correction	○	
RHI	***	RED HIGH	User white balance - Red highlight		
RLW	***	RED LOW	User white balance - Red low light		
RRL	S**	PANEL REVISE RED LEVEL	Setting of red level for panel degradation correction	○	
RSW	***	XY-RST-W ADJ	Adjustment of the width of XY reset pulse	○	
S					
SDM	S00	SD MUTE OFF	Shutdown enabled		
	S01	SD MUTE ON	Shutdown prohibited		
SFR	S01	SUS FREQUENCY MODE1	Measures against AM radio noise - Pattern 1	○	
	S02	SUS FREQUENCY MODE2	Measures against AM radio noise - Pattern 2	○	
	S03	SUS FREQUENCY MODE3	Measures against AM radio noise - Pattern 3	○	
	S04	SUS FREQUENCY MODE4	Measures against AM radio noise - Pattern 4	○	
	S05	SUS FREQUENCY MODE5	Measures against AM radio noise - Pattern 5	○	
	S06	SUS FREQUENCY MODE6	Measures against AM radio noise - Pattern 6	○	
	S07	SUS FREQUENCY MODE7	Measures against AM radio noise - Pattern 7	○	

Command Name		Function		Effective only in Factory mode	Remarks
SFR	S08	SUS FREQUENCY MODE8	Measures against AM radio noise - Pattern 8	○	
SMM	S**	SIDE MASK MODE	Setting of the effective area during streaking correction	○	
SN0	***	SERIAL NO 0	Setting of the serial No. 0 (panel)	○	
SN1	***	SERIAL NO 1	Setting of the serial No. 1 (panel)	○	
SN2	***	SERIAL NO 2	Setting of the serial No. 2 (panel)	○	
SN3	***	SERIAL NO 3	Setting of the serial No. 3 (panel)	○	
SN4	***	SERIAL NO 4	Setting of the serial No. 4 (panel)	○	
SRS	S00	SRS OFF	SRS function: off		
	S01	SRS ON	SRS function: on		
SYS	S00	SYSTEM CABLE NO	Prohibiting monitoring of cable disconnection detection		
	S01	SYSTEM CABLE YES	Permitting monitoring of cable disconnection detection		
T					
TBS	S00	TRUBASS OFF	TruBass function: off		
	S01	TRUBASS ON	TruBass function: on		
TRE	***	TREBLE ADJUSTMENT	Audio treble adjustment		
U					
UAJ		UN-ADJUSTMENT	Determining the flag for the HD DIGITAL Assy adjustment in "not adjusted"	○	
V					
VFQ	S01	FREQENCY VIDEO 48Hz	Setting the frequency in Mask mode to VD-48 Hz	○	
	S02	FREQENCY VIDEO 50Hz	Setting the frequency in Mask mode to VD-50 Hz	○	
	S03	FREQENCY VIDEO 60Hz	Setting the frequency in Mask mode to VD-60 Hz	○	
	S05	FREQENCY THEATER 72Hz	Setting the frequency in Mask mode to VD-72 Hz	○	
	S06	FREQENCY 75Hz	Setting the frequency in Mask mode to VD-75 Hz	○	
	S13	FREQENCY PC 60Hz	Setting the frequency in Mask mode to PC-60 Hz	○	
	S14	FREQENCY PC 70Hz	Setting the frequency in Mask mode to PC-70 Hz	○	
	S22	FREQENCY VIDEO 50Hz NONSTD	Setting the frequency in Mask mode to VD-50 Hz (nonstandard)	○	
	S23	FREQENCY VIDEO 60Hz NONSTD	Setting the frequency in Mask mode to VD-60 Hz (nonstandard)	○	
	S25	FREQENCY VIDEO 72Hz NONSTD	Setting the frequency in Mask mode to VD-72 Hz (nonstandard)	○	
	S26	FREQENCY VIDEO 75Hz NONSTD	Setting the frequency in Mask mode to VD-75 Hz (nonstandard)	○	
VOF	***	Vofs ADJUSTMENT	Adjustment of the reference value of Vofs voltage	○	
VOL	***	VOLUME	Audio volume adjustment		
VRP	***	Vrp ADJUSTMENT	Adjustment of the reference value of Vrst-p voltage	○	
VSU	***	Vsus ADJUSTMENT	Adjustment of the reference value of Vsus voltage	○	
W					
WBI	S00	WB INITIALIZE NO	Panel WB standard output mode: off	○	
WBI	S01	WB INITIALIZE YES	Panel WB standard output mode: on	○	
X					
XSB	***	X-SUS-B ADJ	X-SUS-B ADJ	○	
Y					
YSB	***	Y-SUS-B ADJ	Y-SUS-B ADJ	○	
YTG	***	Y-SUSTAIL ADJ	Y-SUSTAIL ADJ	○	
YTW	***	Y-SUSTAIL W AJD	Y-SUSTAIL W AJD	○	

5. QUEST commands (for acquiring status)

With a QUEST command, data on STBY/ON, PD, and SD can be obtained while the unit is on.

■ Acquisition of panel statuses • • • [QS1]

The command QS1 is for acquiring data necessary for authentication of both the main unit's microcomputer and the module's microcomputer.

Command Format	Effective Operation Modes	Function	Remarks
[QS1]	All operations	To acquire data on product status	Return data: 3 (ECO)+43(DATA)+2(CS)=48Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QS1
1	Resolution/size	1Byte	5
2	Generation	1Byte	6
3	Destination	1Byte	*
4	Grade	1Byte	*
5	Product type	1Byte	S
6	MDUcom-Boot	3Byte	01A
7	MDUcom-PRG	8Byte	001SM "space × 3"
8	SEQUENCE PROCESSOR-Boot	3Byte	01A
9	SEQUENCE PROCESSOR-Boot	8Byte	001AM "space × 3"
10	SQ-VIDEO(43/42)	4Byte	001X
11	SQ-PC(43/42)	4Byte	001X
12	SQ-VIDEO(50/61)	4Byte	001W
13	SQ-PC(50/61)	4Byte	001W
CS		2Byte	7B

● Resolution/size	
4	1024*768-43
5	1280*768-50

● Generation	
6	G6

● Destination	
*	Common

● Grade	
*	Common

● MDUcom/SEQUENCE PROCESSOR-Boot • • • 3Byte		
1st character		Representing the boot version in 2-digit decimal
2nd character		
3rd character	A	When the boot version is common to 43/50
	X	When the boot version is only for 43
	W	When the boot version is only for 50

● Product type	
S	System model

● MDUcom/SEQUENCE PROCESSOR-PRG • • • 8Byte		
1st character	–	For a mass-production product
2nd character		For representing the version in 2-digit decimal
3rd character		
4th character	A	When the program is common to 43/50 (for SEQUENCE PROCESSOR)
	S	When the program is only for another unit (for MDUcom)
5th character	M	Fixed
6th character		Reservation
7th character		Reservation
8th character		Reservation

● SEQUENCE-Data • • • 8Byte		
1st - 3rd characters	Num	For representing the version in 3-digit decimal
4th character	W	When the sequence data are only for 50
	X	When the sequence data are only for 43

• For the version indication, the bytes reserved for special use must be replaced with spaces if they are not used.

■ Acquisition of panel operation data • • • [QS2]

The command QS2 is for acquiring data on the panel's operations. Basically, this command is used for the module's microcomputer to inform the main unit's microcomputer of changes in panel operation.

Command Format	Effective Operation Modes	Function	Remarks
[QS2]	All operations	To acquire data on operations of the panel	Return data: 3 (ECO)+23(DATA)+2(CS)=28Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QS2
1	Notification of mode shifting to STB	1Byte	1
2	Flag for adjustment of the main unit	1Byte	0
3	Flag for adjustment-data backup	1Byte	0
4	"1st PD" data	1Byte	0
5	"2nd PD" data	1Byte	0
6	Reservation	3Byte	***
7	Temperature data (TEMP 1)	3Byte	128
8	SD main data	1Byte	0
9	SD subdata	1Byte	0
10	Operation status induced by SD	1Byte	0
11	Data from the hour meter	8Byte	00000259
12	MASK indication	1Byte	0
CS		2Byte	4A

Note : "00000259" of "Data from the hour meter" means 2 hours 59 minuts.

● Notification of mode shifting to Standby	
0	Entering Standby mode failed
1	Entering Standby mode succeeded

● Adjustment of the main unit	
0	Adjustment completed
1	Adjustment not completed

● Adjustment-data backup	
0	With backup data
1	No data

● PD data	
0	No PD data
1	Not used
2	POWER
3	SCAN
4	SCN-5V
5	Not used
6	Y-DCDC
7	Y-SUS
8	ADRS
9	X-DRV
A	X-DCDC
B	X-SUS
C	Not used
D	SQ-IC
E	Not used
F	Specification inability

● SD main data	
0	No SD
1	SQ-IC
2	MDU-IIC
3	RST2
4	Panel having high temperature
5	Short-circuited speaker

● SD subdata (IIC)	
0	No SD subdata
1	EEPROM
2	BACKUP
3	DAC
4	VOL IC
5	DVI

● Operation status induced by SD	
0	Normal
1	Relay-off completed
2	During warning indication

● MASK indication	
0	MASK-OFF
1	MASK-ON

■ Acquisition of other data on the panel • • • [QIP]

The command QIP is for acquiring data other than those available with QS1 (data necessary before turning the power on) and QS2 (data to inform of operational status change).

Command Format	Effective Operation Modes	Function	Remarks
[QIP]	All operations	To acquire data on operations of the panel	Return data: 3 (ECO)+39(DATA)+2(CS)=44Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QIP
1	SERIAL	15Byte	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _
2	HOUR METER	8Byte	00000000
3	BACKUP HR MTR	8Byte	00000000
4	PON COUNTER	8Byte	00000000
CS		2Byte	94

Note : The real product serial number is displayed in "SERIAL".

■ Acquisition of panel adjustment data (common data) • • • [QAJ]

The command QAJ is for acquiring data on the panel's factory-preset items that are common to the main unit and that share the same memory.

Command Format	Effective Operation Modes	Function	Remarks
[QAJ]	All operations	To acquire data on operations of the panel	Return data: 3 (ECO)+27(DATA)+2(CS)=32Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QAJ
1	V-SUS adjustment value	3Byte	128
2	V-OFT adjustment value	3Byte	128
3	V-RST-P adjustment value	3Byte	128
4	XSB adjustment value	3Byte	128
5	YSB adjustment value	3Byte	128
6	YTG adjustment value	3Byte	128
7	YTW adjustment value	3Byte	128
8	RSW adjustment value	3Byte	128
9	R-RIVISE setting value	1Byte	0
10	G-RIVISE setting value	1Byte	0
11	B-RIVISE setting value	1Byte	0
CS		2Byte	B7

■ Acquisition of ABL/WB adjustment data • • • [QPW]

The command QPW is for acquiring data on the panel's factory-preset items whose memory tables are changed in sequence.

Command Format	Effective Operation Modes	Function	Remarks
[QPW]	All operations	To acquire data on operations of the panel	Return data: 3 (ECO)+35(DATA)+2(CS)=40Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QPW
1	Drive sequence	3Byte	60V
2	Standard/nonstandard	1Byte	S
3	Type of ABL/WB tables	2Byte	T2
4	ABL adjustment value	3Byte	128
5	R-HIGH adjustment value	3Byte	256
6	G-HIGH adjustment value	3Byte	256
7	B-HIGH adjustment value	3Byte	256
8	R-LOW adjustment value	3Byte	512
9	G-LOW adjustment value	3Byte	512
10	B-LOW adjustment value	3Byte	512
11	Gamma setting	1Byte	A
12	Streaking correction	1Byte	1
13	Peripheral luminance correction	1Byte	0
14	Reservation	1Byte	*
15	WB interlocked with APL	1Byte	0
16	Transition of protective operations	1Byte	0
17	Reservation	2Byte	**
CS		2Byte	37

● Drive sequence

48V	Video48 Hz
50V	Video50 Hz
60V	Video60 Hz
72V	Video72 Hz
75V	Video75 Hz
60P	PC60Hz
70P	PC70Hz

● Standard/ nonstandard

S	Standard
N	Nonstandard

● Gamma setting

n	0 to F

● Setting for Items 12 and 15

0	OFF
1	ON

● Peripheral luminance correction

0	OFF
2	ON (interlocked with APL)

● Transition of brightness by protective operations

0	Upper limit state for brightness
1	Brightness being reduced
2	Lower limit state for brightness
3	Brightness being increased

● Type of ABL/WB tables

Tn	n: 1 to 4

■ Acquisition of parameters • • • [QPM]

The command QPM is for acquiring the accumulated number of pulses for each of 5 blocks from the EEPROM.

Command Format	Effective Operation Modes	Function	Remarks
[QPM]	All operations	To acquire data on operations of the panel	Return data: 3 (ECO)+40(DATA)+2(CS)=45Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QPM
1	Pulse meter B 1	8Byte	00000000
2	Pulse meter B 2	8Byte	00000000
3	Pulse meter B 3	8Byte	00000000
4	Pulse meter B 4	8Byte	00000000
5	Pulse meter B 5	8Byte	00000000
CS		2Byte	E7

• The output data on the accumulated number of pulses for each block are calculated in the following way: the high-order 4 bytes of the accumulated number of pulses for each block are converted into a decimal number, and the high-order 8 digits are transmitted. The unit of each block is M_pulse (mega).

■ Acquisition of PD logs • • • [QPD]

The command QPD is for acquiring data from the 8 latest power-down (PD) logs.

Command Format	Effective Operation Modes	Function	Remarks
[QPD]	All operations	To acquire data on the power-down logs	Return data: 3 (ECO)+80(DATA)+2(CS)=85Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QPD
1	Latest "1st PD" data	1byte	A
2	Latest "2nd PD" data	1byte	2
3	Data from the hour meter for the latest PD	8byte	00010020
4	Second latest "1st PD" data	1byte	E
5	Second latest "2nd PD" data	1byte	9
6	Data from the hour meter for the second latest PD	8byte	00008523
7	Third latest "1st PD" data	1byte	4
8	Third latest "2nd PD" data	1byte	3
9	Data from the hour meter for the third latest PD	8byte	00004335
10	Fourth latest "1st PD" data	1byte	2
11	Fourth latest "2nd PD" data	1byte	0
12	Data from the hour meter for the fourth latest PD	8byte	00000945
13	Fifth latest "1st PD" data	1byte	4
14	Fifth latest "2nd PD" data	1byte	0
15	Data from the hour meter for the fifth latest PD	8byte	00000715
16	Sixth latest "1st PD" data	1byte	A
17	Sixth latest "2nd PD" data	1byte	2
18	Data from the hour meter for the sixth latest PD	8byte	00000552
19	Seventh latest "1st PD" data	1byte	A
20	Seventh latest "2nd PD" data	1byte	0
21	Data from the hour meter for the seventh latest PD	8byte	00000213
22	Eighth latest "1st PD" data	1byte	D
23	Eighth latest "2nd PD" data	1byte	0
24	Data from the hour meter for the eighth latest PD	8byte	000001A7
CS		2Byte	27

● PD data	
0	No PD
1	Not used
2	P-POWER
3	SCAN
4	SCN-5V
5	Not used
6	Y-DCDC
7	Y-SUS
8	Address
9	X-DRIVE
A	X-DCDC
B	X-SUS
C	DIG-DCDC
D	QS (driving stopped)
E	Not used
F	Specification inability

■ Acquisition of SD logs • • • [QSD]

The command QSD is for acquiring the data from the 8 latest shutdown (SD) logs.

Command Format	Effective Operation Modes	Function	Remarks
[QSD]	All operations	To acquire data on the shutdown logs	Return data: 3 (ECO)+80(DATA)+2(CS)=85Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QSD
1	Latest SD data	1byte	1
2	Latest SD subcategory data	1byte	0
3	Data from the hour meter for the latest SD	8byte	00752013
4	Second latest SD data	1byte	5
5	Second latest SD subcategory data	1byte	0
6	Data from the hour meter for the second latest SD	8byte	00495204
7	Third latest SD data	1byte	2
8	Third latest SD subcategory data	1byte	3
9	Data from the hour meter for the third latest SD	8byte	00100355
10	Fourth latest SD data	1byte	2
11	Fourth latest SD subcategory data	1byte	5
12	Data from the hour meter for the fourth latest SD	8byte	00075620
13	Fifth latest SD data	1byte	1
14	Fifth latest SD subcategory data	1byte	0
15	Data from the hour meter for the fifth latest SD	8byte	00000852
16	Sixth latest SD data	1byte	2
17	Sixth latest SD subcategory data	1byte	5
18	Data from the hour meter for the sixth latest SD	8byte	000000451
19	Seventh latest SD data	1byte	0
20	Seventh latest SD subcategory data	1byte	0
21	Data from the hour meter for the seventh latest SD	8byte	00000000
22	Eighth latest SD data	1byte	0
23	Eighth latest SD subcategory data	1byte	0
24	Data from the hour meter for the eighth latest SD	8byte	00000000
CS		2Byte	7D

● SD data	
0	No SD
1	SQ-IC
2	MDU-IIC
3	RST2
4	Panel having high temperature
5	Short-circuited speaker

● SD subcategory	
0	No SD subcategory
1	EEPROM
2	BACKUP
3	DAC
4	VOL-IC
5	DVI
6	Not used

■ Acquisition of input signal data • • • [QSI]

The command QSI is for acquiring all data on input video signals.

Command Format	Effective Operation Modes	Function	Remarks
[QSI]	All operations	To acquire all data on input video signals	Return data: 3 (ECO)+66(DATA)+2(CS)=71Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QSI
1	Type of drive sequence	3byte	60V
2	Standard/nonstandard	1byte	S
3	Type of ABL/WB tables	2byte	T1
4	Total value of PCN	4byte	0256
5	Total value of PRH	4byte	0256
6	Total value of PGH	4byte	0256
7	Total value of PBH	4byte	0256
8	Total value of PBR	4byte	0512
9	Total value of PRL	4byte	0512
10	Total value of PGL	4byte	0512
11	Total value of PBL	4byte	0512
12	Reservation	2byte	**
13	Detection of existence of H	1byte	Y
14	Detection of V frequency	4byte	6002
15	Reservation	4byte	****
16	Obtained APL data	4byte	1023
17	Number of SUS pulses	4byte	0457
18	Result of detection of still picture	1byte	1
19	Result of detection of cracking in the panel	1byte	1
20	Result of detection for scanning protection	1byte	1
21	Result of detection for external protection	1byte	1
22	Transition of protection operation	1byte	0
23	Reservation	4byte	****
CS		2Byte	27

● Detection of existence of H	
N	No H
Y	H detected

● Transition of brightness by protection operation	
0	Upper limit state for brightness
1	Brightness being reduced
2	Lower limit state for brightness
3	Brightness being increased

- If data for an item cannot be obtained during Standby mode, the return data for that item will be "*."
- The types of data for Items 1-3 in the table (drive sequence, standard/nonstandard, and type of ABL/WB tables) are the same as with the command QPW.
- Each total value for Items 4-11 represents that of panel WB, user WB, and degradation correction, and the actual data being sent to the ASTRA are output.
- Detection of V frequency: The V signal input to the panel is measured in the range of 30.51 to 99.99 Hz. The measured value is multiplied by 100 and then output.
- Number of SUS pulses : The number is calculated from data from APL and the drive sequence. The output value must be between 0174 and 2752.
- APL value: The APL value for the input video signal (or mask indication) will be output in the range of 0000 to 1023.

■ Setting for Factory mode permission/prohibition • • • [FAY/FAN] [PFY/PFN]

The commands FAY/FAN and PFY/PFN are for prohibiting/permitting panel-adjustment commands during normal operation and are to be used to avoid accidental change of panel adjustment values.

Command Format	Operation		Remarks
	Effective Operation Modes	Control (by the microcomputer itself)	
[FAY]	Normal operation mode while the power is on	Adjustment mode: ON	Mask indications will be forcibly turned off.
[PFY]			With a PFY command, the mask does not change.
[FAN]	During FAY	Adjustment mode: OFF	
[PFN]			

• Commands that are effective during normal operation will also be effective during FAY (PFY) mode.

Note:

• The functions shown below will be forcibly switched when Mask ON/OFF is switched. (Even if the panel is off, changed settings will be retained.)
While the status of Mask ON or OFF is maintained, if settings for the individual functions shown in ① and ② are changed, those settings are retained (even if the drive frequency is changed).

① Functions related to picture quality

Function	Setting while Mask is ON	Setting while Mask is OFF	Remarks
Peripheral luminance correction	OFF	ON	
WB correction interlocked with APL	OFF	ON	
Streaking correction	OFF	ON	

② Functions related to panel protection

Function	Setting while Mask is ON	Setting while Mask is OFF	Remarks
Detection of still picture	OFF	ON	
Detection of cracking in the panel	OFF	ON	
Scanning protection	OFF	ON	

• Depending on the type of mask displayed, phosphor burn of the panel may occur. As the panel-protection function is forcibly turned off with this model, care must be taken when color-bar signals are to be displayed for an extended period.

■ Backup function for adjustment values for the main unit • • • [FAJ/UAJ/CBU/BCP]

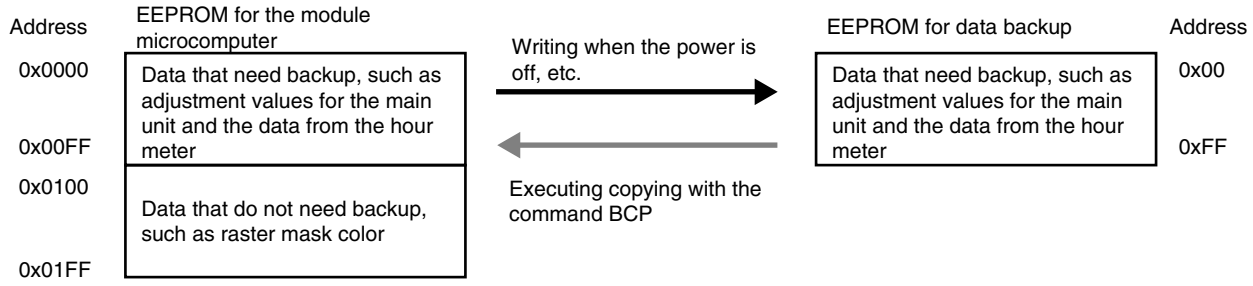
When the HD DIGITAL Assy is to be replaced, adjustment values can be copied from the backup EEPROM to the EEPROM of the Assy for service.

Command Format	Operation			Remarks
	Effective Operation Modes	Control (by the microcomputer itself)		
[FAJ]	During FAY	To make the flag setting that indicating that adjustment of the main unit has been completed	Writing 00 to the 4-kbyte ROM and copying to the 2-kbyte ROM	This takes at least 350 ms.
[UAJ]		To make the flag setting that indicating that adjustment of the main unit has not been completed	Writing F0 to the 4-kbyte ROM	
[CBU]		To make the flag setting that indicating that backup data have not been copied	Writing F0 to the 2-kbyte ROM	The backup ROM is initialized.
[BCP]		To make the flag setting that indicating that backup data have been copied	Copying backup data	

When the flag indicating that the line adjustments (SUS waveform, voltage margin, and panel WB) for the main unit have been completed is set to on, data stored from Addresses 0x0000 to 0X00FF in the digital EEPROM are copied to the same addresses of the backup EEPROM. Copying will be executed immediately before the relay of normal operation is off.

- When the command BCP is received while a warning indicating that backup copying has not been completed is displayed (conditions: main EEPROM = not adjusted, and backup EEPROM = adjusted), backed-up data will be copied to the main EEPROM, and various adjustment values related to Factory mode will be readjusted. Then LED warning indication will be shut off, and normal LED indication will be restored.

- If the backup EEPROM has not been adjusted when the command BCP is received (0x0063 is not written to all three addresses of the key data), copying of the backup data is not possible, and "XXX" is returned.



Note:
- When the command FAJ, UAJ, or CBU is executed, only high-order one-byte (0x00 or 0xF0) key data will be written to the EEPROM, and lower-order one-byte (0x63) data will not be changed.
- It takes at least 350 ms from reception of the command FAJ until an echo is sent back, because data are copied to the backup EEPROM.

■ Factory presetting • • • [PFS]

Command Format	Operation			Remarks
	Effective Operation Modes	Control (by the microcomputer itself)		
[PFS]	During FAY	Initialized to factory-preset values		

- When this command is executed, the values not stored in the EEPROM are initialized, mask indication is set to OFF, control of the power for line aging is set to OFF, and detection of the system cable is set to ON.

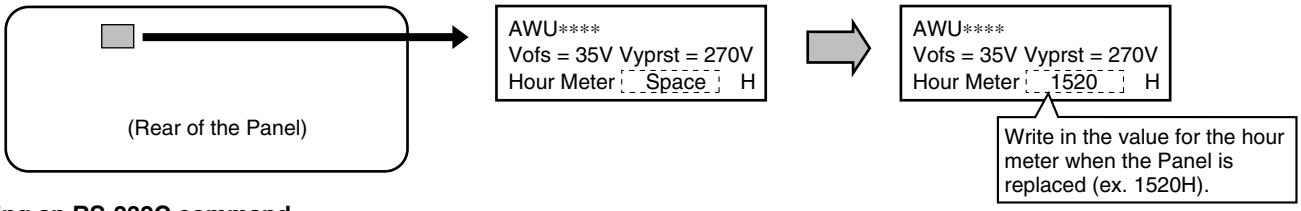
6.3 METHOD FOR REPLACING THE SERVICE PANEL ASSY

When the Panel Assy is replaced with one for service, the following adjustments are required:

■ Adjustments of Vofs voltage and Vyprst voltage

Enter the reference adjustment values for the Vofs voltage and Vyprst voltage that are written on the label attached to the panel for service.

Note: Enter the values, using an RS-232C command or the Factory Menu.



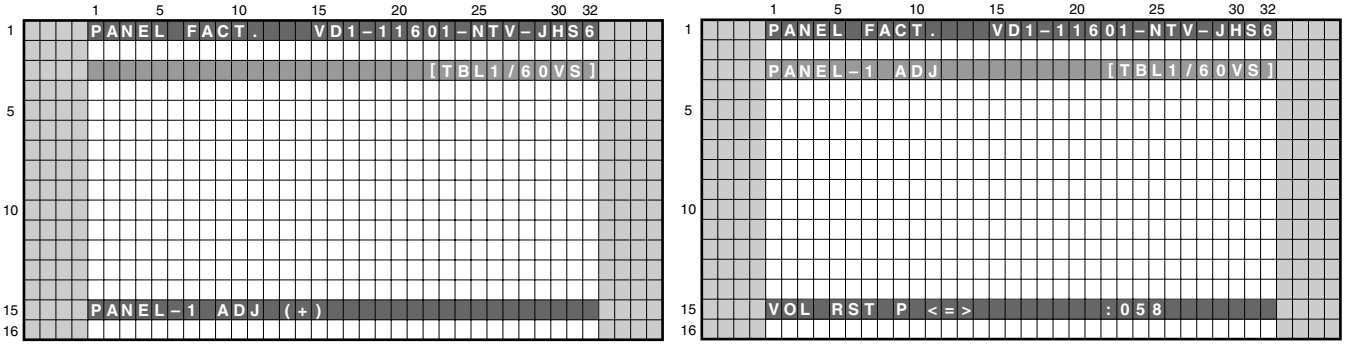
Using an RS-232C command

Enter a "PFY" command with Factory mode ON.

Convert the adjustment voltage values written on the label attached at the rear of the Panel to an input command, referring to the conversion chart. (See the next page.)

- Reference adjustment of the Vofs voltage: Ex. "Vofs = 35" → (Check the conversion chart.) Enter "VOF112."
- Reference adjustment of the Vyprst voltage: Ex. 50-inch "Vyprst = 270 V" → (Check the conversion chart.) Enter "VRP055." (Note that the conversion charts for 50-inch and 43-inch Panels are different.)

Using the Factory Menu



Select the main item "PANEL FACT." by pressing the MUTE key then enter Panel Factory mode by pressing the SET key.
Using the ▲/▼ keys, select "PANEL-1 ADJ" then press the SET key to enter the next lower nested layer.
Select "VOL-OFFSET" or "VOL RST P" then enter a command value converted from the voltage value, using the ◄/► keys.

■ Clearing data on various histories of the Panel, such as those on the hour meter

- It is necessary to clear the data on the hour meter, etc. to match them to the actual driving hours of the Panel.
- It is also necessary to clear the data on SD and PD, because the accumulated power-on time when a shutdown or power-down occurred is recorded.

Note: Clear the values, using an RS-232C command or the Factory Menu.
There are two types of hour meters. Do not take the MR hour meter for the hour meter.

Using an RS-232C command

To acquire the accumulated power-on time of the product itself, use the "GS2" RS-232C command.

1 To clear the data on the hour meter (for the Panel) : CHM
2 To clear the data on the pulse meter : CPM
3 To clear the data on the SD history : CSD
4 To clear the data on the PD history : CPD

Using the Factory Menu

See "7.1.7 HOW TO CLEAR HISTORY DATA."

■ Conversion charts for electronic VRs: Conversion chart for the Vofs

Conversion chart for the Vofs (Commands vs. Common voltage values for the 50-inch and 43-inch models)

Command	Voltage value [V] for common sizes	Command	Voltage value [V] for common sizes	Command	Voltage value [V] for common sizes	Command	Voltage value [V] for common sizes	Command	Voltage value [V] for common sizes
VOF000	14.09	VOF056	24.55	VOF112	35.01	VOF168	45.47	VOF224	55.93
VOF001	14.28	VOF057	24.74	VOF113	35.20	VOF169	45.66	VOF225	56.12
VOF002	14.46	VOF058	24.92	VOF114	35.38	VOF170	45.85	VOF226	56.31
VOF003	14.65	VOF059	25.11	VOF115	35.57	VOF171	46.03	VOF227	56.49
VOF004	14.84	VOF060	25.30	VOF116	35.76	VOF172	46.22	VOF228	56.68
VOF005	15.02	VOF061	25.48	VOF117	35.95	VOF173	46.41	VOF229	56.87
VOF006	15.21	VOF062	25.67	VOF118	36.13	VOF174	46.59	VOF230	57.05
VOF007	15.40	VOF063	25.86	VOF119	36.32	VOF175	46.78	VOF231	57.24
VOF008	15.58	VOF064	26.04	VOF120	36.51	VOF176	46.97	VOF232	57.43
VOF009	15.77	VOF065	26.23	VOF121	36.69	VOF177	47.15	VOF233	57.61
VOF010	15.96	VOF066	26.42	VOF122	36.88	VOF178	47.34	VOF234	57.80
VOF011	16.14	VOF067	26.61	VOF123	37.07	VOF179	47.53	VOF235	57.99
VOF012	16.33	VOF068	26.79	VOF124	37.25	VOF180	47.71	VOF236	58.17
VOF013	16.52	VOF069	26.98	VOF125	37.44	VOF181	47.90	VOF237	58.36
VOF014	16.70	VOF070	27.17	VOF126	37.63	VOF182	48.09	VOF238	58.55
VOF015	16.89	VOF071	27.35	VOF127	37.81	VOF183	48.27	VOF239	58.73
VOF016	17.08	VOF072	27.54	VOF128	38.00	VOF184	48.46	VOF240	58.92
VOF017	17.27	VOF073	27.73	VOF129	38.19	VOF185	48.65	VOF241	59.11
VOF018	17.45	VOF074	27.91	VOF130	38.37	VOF186	48.83	VOF242	59.30
VOF019	17.64	VOF075	28.10	VOF131	38.56	VOF187	49.02	VOF243	59.48
VOF020	17.83	VOF076	28.29	VOF132	38.75	VOF188	49.21	VOF244	59.67
VOF021	18.01	VOF077	28.47	VOF133	38.93	VOF189	49.39	VOF245	59.86
VOF022	18.20	VOF078	28.66	VOF134	39.12	VOF190	49.58	VOF246	60.04
VOF023	18.39	VOF079	28.85	VOF135	39.31	VOF191	49.77	VOF247	60.23
VOF024	18.57	VOF080	29.03	VOF136	39.49	VOF192	49.96	VOF248	60.42
VOF025	18.76	VOF081	29.22	VOF137	39.68	VOF193	50.14	VOF249	60.60
VOF026	18.95	VOF082	29.41	VOF138	39.87	VOF194	50.33	VOF250	60.79
VOF027	19.13	VOF083	29.59	VOF139	40.05	VOF195	50.52	VOF251	60.98
VOF028	19.32	VOF084	29.78	VOF140	40.24	VOF196	50.70	VOF252	61.16
VOF029	19.51	VOF085	29.97	VOF141	40.43	VOF197	50.89	VOF253	61.35
VOF030	19.69	VOF086	30.15	VOF142	40.62	VOF198	51.08	VOF254	61.54
VOF031	19.88	VOF087	30.34	VOF143	40.80	VOF199	51.26	VOF255	61.72
VOF032	20.07	VOF088	30.53	VOF144	40.99	VOF200	51.45		
VOF033	20.25	VOF089	30.71	VOF145	41.18	VOF201	51.64		
VOF034	20.44	VOF090	30.90	VOF146	41.36	VOF202	51.82		
VOF035	20.63	VOF091	31.09	VOF147	41.55	VOF203	52.01		
VOF036	20.81	VOF092	31.28	VOF148	41.74	VOF204	52.20		
VOF037	21.00	VOF093	31.46	VOF149	41.92	VOF205	52.38		
VOF038	21.19	VOF094	31.65	VOF150	42.11	VOF206	52.57		
VOF039	21.37	VOF095	31.84	VOF151	42.30	VOF207	52.76		
VOF040	21.56	VOF096	32.02	VOF152	42.48	VOF208	52.94		
VOF041	21.75	VOF097	32.21	VOF153	42.67	VOF209	53.13		
VOF042	21.94	VOF098	32.40	VOF154	42.86	VOF210	53.32		
VOF043	22.12	VOF099	32.58	VOF155	43.04	VOF211	53.50		
VOF044	22.31	VOF100	32.77	VOF156	43.23	VOF212	53.69		
VOF045	22.50	VOF101	32.96	VOF157	43.42	VOF213	53.88		
VOF046	22.68	VOF102	33.14	VOF158	43.60	VOF214	54.06		
VOF047	22.87	VOF103	33.33	VOF159	43.79	VOF215	54.25		
VOF048	23.06	VOF104	33.52	VOF160	43.98	VOF216	54.44		
VOF049	23.24	VOF105	33.70	VOF161	44.16	VOF217	54.63		
VOF050	23.43	VOF106	33.89	VOF162	44.35	VOF218	54.81		
VOF051	23.62	VOF107	34.08	VOF163	44.54	VOF219	55.00		
VOF052	23.80	VOF108	34.26	VOF164	44.72	VOF220	55.19		
VOF053	23.99	VOF109	34.45	VOF165	44.91	VOF221	55.37		
VOF054	24.18	VOF110	34.64	VOF166	45.10	VOF222	55.56		
VOF055	24.36	VOF111	34.82	VOF167	45.29	VOF223	55.75		

■ Conversion charts for electronic VRs: Conversion chart for the Vyprst (1/2)

Conversion chart for the Vyprst (Commands vs. Voltage values for the 50-inch and 43-inch models)

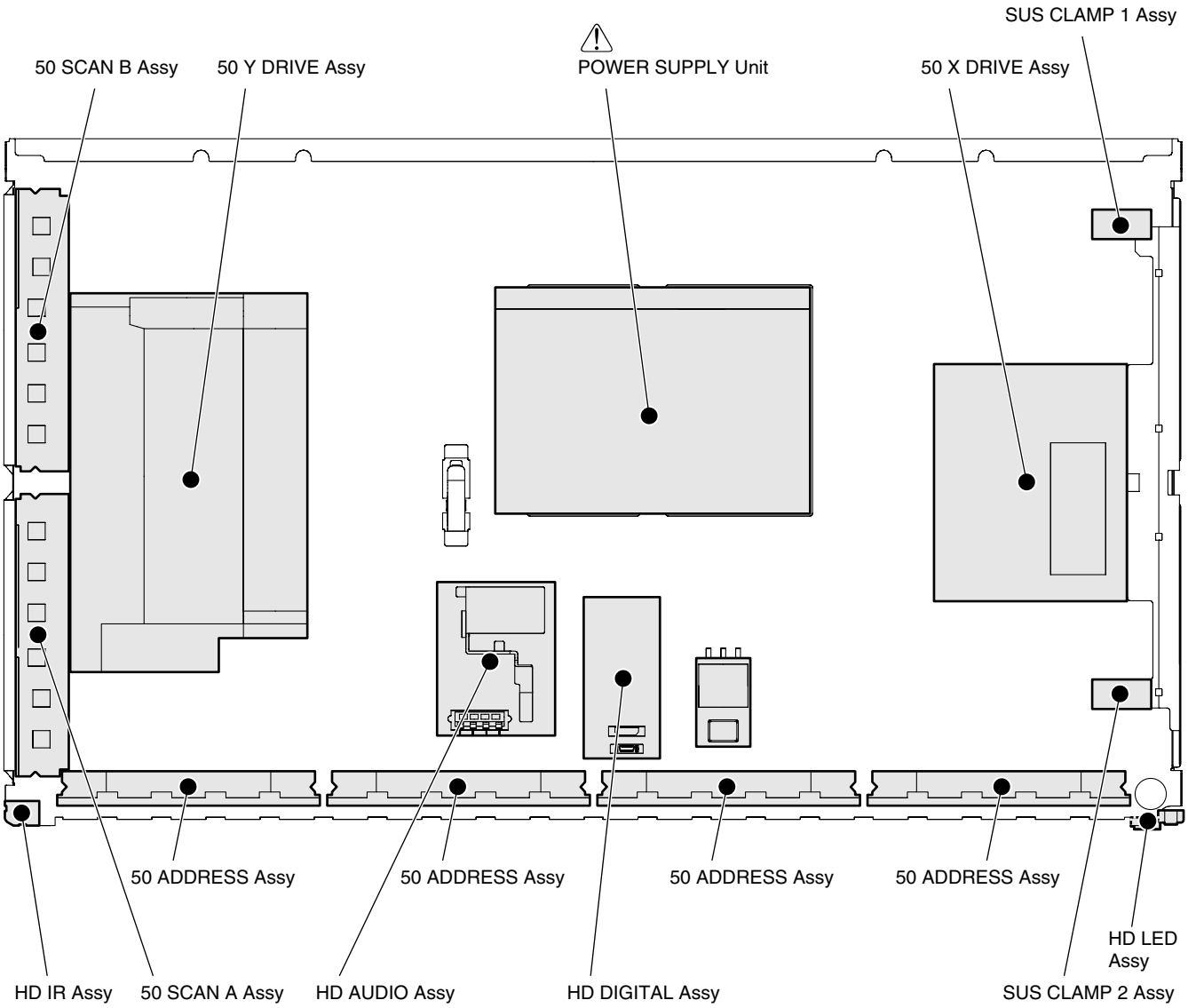
Command	Voltage [V]		Command	Voltage [V]		Command	Voltage [V]	
	50-inch Model	43-inch Model		50-inch Model	43-inch Model		50-inch Model	43-inch Model
VRP000	246.3	236.3	VRP056	270.6	260.6	VRP112	294.9	284.9
VRP001	246.7	236.7	VRP057	271.0	261.0	VRP113	295.4	285.4
VRP002	247.1	237.1	VRP058	271.5	261.5	VRP114	295.8	285.8
VRP003	247.6	237.6	VRP059	271.9	261.9	VRP115	296.2	286.2
VRP004	248.0	238.0	VRP060	272.3	262.3	VRP116	296.7	286.7
VRP005	248.4	238.4	VRP061	272.8	262.8	VRP117	297.1	287.1
VRP006	248.9	238.9	VRP062	273.2	263.2	VRP118	297.5	287.5
VRP007	249.3	239.3	VRP063	273.6	263.6	VRP119	298.0	288.0
VRP008	249.7	239.7	VRP064	274.1	264.1	VRP120	298.4	288.4
VRP009	250.2	240.2	VRP065	274.5	264.5	VRP121	298.8	288.8
VRP010	250.6	240.6	VRP066	274.9	264.9	VRP122	299.3	289.3
VRP011	251.0	241.0	VRP067	275.4	265.4	VRP123	299.7	289.7
VRP012	251.5	241.5	VRP068	275.8	265.8	VRP124	300.1	290.1
VRP013	251.9	241.9	VRP069	276.2	266.2	VRP125	300.6	290.6
VRP014	252.4	242.4	VRP070	276.7	266.7	VRP126	301.0	291.0
VRP015	252.8	242.8	VRP071	277.1	267.1	VRP127	301.4	291.4
VRP016	253.2	243.2	VRP072	277.5	267.5	VRP128	301.9	291.9
VRP017	253.7	243.7	VRP073	278.0	268.0	VRP129	302.3	292.3
VRP018	254.1	244.1	VRP074	278.4	268.4	VRP130	302.7	292.7
VRP019	254.5	244.5	VRP075	278.9	268.9	VRP131	303.2	293.2
VRP020	255.0	245.0	VRP076	279.3	269.3	VRP132	303.6	293.6
VRP021	255.4	245.4	VRP077	279.7	269.7	VRP133	304.0	294.0
VRP022	255.8	245.8	VRP078	280.2	270.2	VRP134	304.5	294.5
VRP023	256.3	246.3	VRP079	280.6	270.6	VRP135	304.9	294.9
VRP024	256.7	246.7	VRP080	281.0	271.0	VRP136	305.3	295.3
VRP025	257.1	247.1	VRP081	281.5	271.5	VRP137	305.8	295.8
VRP026	257.6	247.6	VRP082	281.9	271.9	VRP138	306.2	296.2
VRP027	258.0	248.0	VRP083	282.3	272.3	VRP139	306.7	296.7
VRP028	258.4	248.4	VRP084	282.8	272.8	VRP140	307.1	297.1
VRP029	258.9	248.9	VRP085	283.2	273.2	VRP141	307.5	297.5
VRP030	259.3	249.3	VRP086	283.6	273.6	VRP142	308.0	298.0
VRP031	259.7	249.7	VRP087	284.1	274.1	VRP143	308.4	298.4
VRP032	260.2	250.2	VRP088	284.5	274.5	VRP144	308.8	298.8
VRP033	260.6	250.6	VRP089	284.9	274.9	VRP145	309.3	299.3
VRP034	261.0	251.0	VRP090	285.4	275.4	VRP146	309.7	299.7
VRP035	261.5	251.5	VRP091	285.8	275.8	VRP147	310.1	300.1
VRP036	261.9	251.9	VRP092	286.2	276.2	VRP148	310.6	300.6
VRP037	262.3	252.3	VRP093	286.7	276.7	VRP149	311.0	301.0
VRP038	262.8	252.8	VRP094	287.1	277.1	VRP150	311.4	301.4
VRP039	263.2	253.2	VRP095	287.5	277.5	VRP151	311.9	301.9
VRP040	263.6	253.6	VRP096	288.0	278.0	VRP152	312.3	302.3
VRP041	264.1	254.1	VRP097	288.4	278.4	VRP153	312.7	302.7
VRP042	264.5	254.5	VRP098	288.8	278.8	VRP154	313.2	303.2
VRP043	264.9	254.9	VRP099	289.3	279.3	VRP155	313.6	303.6
VRP044	265.4	255.4	VRP100	289.7	279.7	VRP156	314.0	304.0
VRP045	265.8	255.8	VRP101	290.1	280.1	VRP157	314.5	304.5
VRP046	266.3	256.3	VRP102	290.6	280.6	VRP158	314.9	304.9
VRP047	266.7	256.7	VRP103	291.0	281.0	VRP159	315.3	305.3
VRP048	267.1	257.1	VRP104	291.4	281.4	VRP160	315.8	305.8
VRP049	267.6	257.6	VRP105	291.9	281.9	VRP161	316.2	306.2
VRP050	268.0	258.0	VRP106	292.3	282.3	VRP162	316.6	306.6
VRP051	268.4	258.4	VRP107	292.8	282.8	VRP163	317.1	307.1
VRP052	268.9	258.9	VRP108	293.2	283.2	VRP164	317.5	307.5
VRP053	269.3	259.3	VRP109	293.6	283.6	VRP165	317.9	307.9
VRP054	269.7	259.7	VRP110	294.1	284.1	VRP166	318.4	308.4
VRP055	270.2	260.2	VRP111	294.5	284.5	VRP167	318.8	308.8

■ Conversion charts for electronic VRs: Conversion chart for the Vyprst (2/2)

Conversion chart for the Vyprst (Commands vs. Voltage values for the 50-inch and 43-inch models)

Command	Voltage [V]		Command	Voltage [V]	
	50-inch Model	43-inch Model		50-inch Model	43-inch Model
VRP168	319.2	309.2	VRP224	343.6	333.6
VRP169	319.7	309.7	VRP225	344.0	334.0
VRP170	320.1	310.1	VRP226	344.4	334.4
VRP171	320.6	310.6	VRP227	344.9	334.9
VRP172	321.0	311.0	VRP228	345.3	335.3
VRP173	321.4	311.4	VRP229	345.7	335.7
VRP174	321.9	311.9	VRP230	346.2	336.2
VRP175	322.3	312.3	VRP231	346.6	336.6
VRP176	322.7	312.7	VRP232	347.1	337.1
VRP177	323.2	313.2	VRP233	347.5	337.5
VRP178	323.6	313.6	VRP234	347.9	337.9
VRP179	324.0	314.0	VRP235	348.4	338.4
VRP180	324.5	314.5	VRP236	348.8	338.8
VRP181	324.9	314.9	VRP237	349.2	339.2
VRP182	325.3	315.3	VRP238	349.7	339.7
VRP183	325.8	315.8	VRP239	350.1	340.1
VRP184	326.2	316.2	VRP240	350.5	340.5
VRP185	326.6	316.6	VRP241	351.0	341.0
VRP186	327.1	317.1	VRP242	351.4	341.4
VRP187	327.5	317.5	VRP243	351.8	341.8
VRP188	327.9	317.9	VRP244	352.3	342.3
VRP189	328.4	318.4	VRP245	352.7	342.7
VRP190	328.8	318.8	VRP246	353.1	343.1
VRP191	329.2	319.2	VRP247	353.6	343.6
VRP192	329.7	319.7	VRP248	354.0	344.0
VRP193	330.1	320.1	VRP249	354.4	344.4
VRP194	330.5	320.5	VRP250	354.9	344.9
VRP195	331.0	321.0	VRP251	355.3	345.3
VRP196	331.4	321.4	VRP252	355.7	345.7
VRP197	331.8	321.8	VRP253	356.2	346.2
VRP198	332.3	322.3	VRP254	356.6	346.6
VRP199	332.7	322.7	VRP255	357.0	347.0
VRP200	333.2	323.2			
VRP201	333.6	323.6			
VRP202	334.0	324.0			
VRP203	334.5	324.5			
VRP204	334.9	324.9			
VRP205	335.3	325.3			
VRP206	335.8	325.8			
VRP207	336.2	326.2			
VRP208	336.6	326.6			
VRP209	337.1	327.1			
VRP210	337.5	327.5			
VRP211	337.9	327.9			
VRP212	338.4	328.4			
VRP213	338.8	328.8			
VRP214	339.2	329.2			
VRP215	339.7	329.7			
VRP216	340.1	330.1			
VRP217	340.5	330.5			
VRP218	341.0	331.0			
VRP219	341.4	331.4			
VRP220	341.8	331.8			
VRP221	342.3	332.3			
VRP222	342.7	332.7			
VRP223	343.1	333.1			

7. GENERAL INFORMATION
7.1 DIAGNOSIS
7.1.1 PCB LOCATION



7.1.2 DIAGNOSIS OF SHUTDOWN/POWER-DOWN INDICATED BY LEDS

• Operation statuses indicated by LEDs

Status	LED Pattern			
Standby	1	Lit in Red	Blue Red	
Power ON	2	Lit in Blue	Blue Red	
AC Power OFF of one side	3	Red flashes (1000ms)	Blue Red	1000ms
System cable disconnection	4	Red and blue flash (1000ms)	Blue Red	1000ms 1000ms
Power-down	5	Red flashes (500+2500ms)	Blue Red	Once Twice n times 2.5s Once 500ms
Shutdown	6	Blue flashes (500+2500ms)	Blue Red	500ms Once Twice n times 2.5s Once
No backup copy	7	Lit in Red and blue flashes (200ms)	Blue Red	200ms

: Lit in Red LED
: Lit in Blue LED

• PD (power-down) count

1	Not used
2	POWER SUPPLY Unit
3	SCAN Assy
4	5V power supply for SCAN
5	Y-DRIVE (Not used)
6	DCDC for Y drive
7	Y-SUS
8	ADDRESS Assy
9	X-DRIVE
10	DCDC for X drive
11	X-SUS
12	Not used
13	Sequence drive stop
14	Not used
15	UNKNOWN

Note:
- When a shutdown occurs, a warning will be issued by the Media Receiver and displayed, then the power will be shut off.
- When a shutdown or power-down occurs on the Panel side, the Media Receiver will enter Standby mode (the red LED will light).

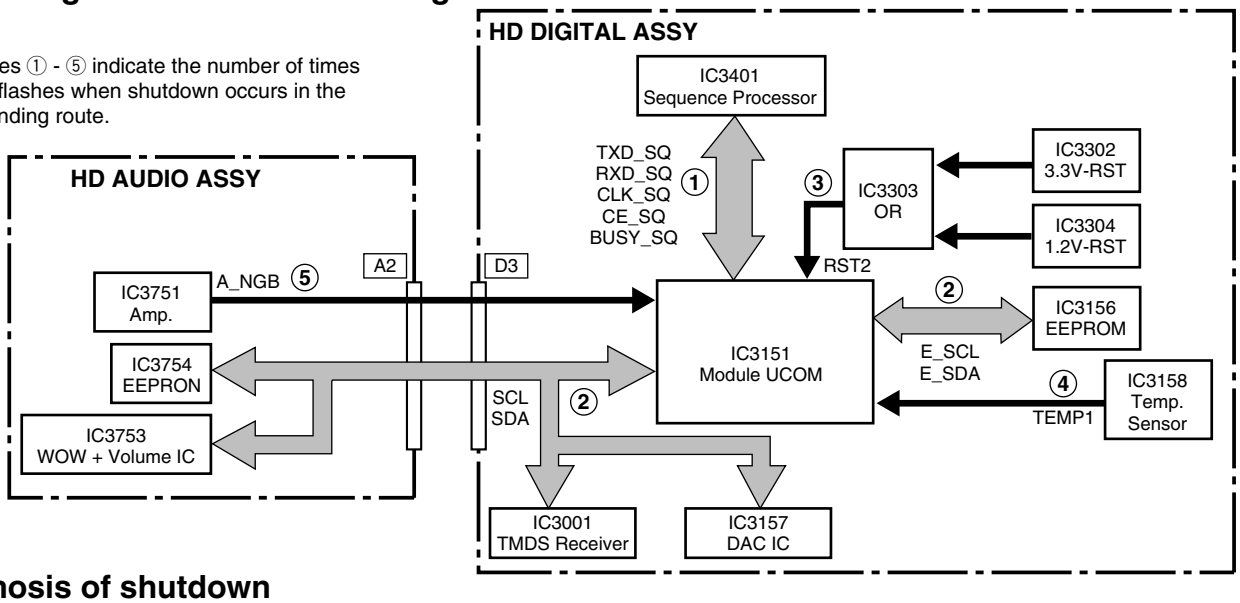
• SD (shut down) count

1	SEQUENCE PROCESSOR (SQ_IC)
2	MDU-IIC
3	RST2 abnormality
4	Panel high temperature
5	Speaker short-circuit *

* When a jumper (J105) between the HD AUDIO Assy and the POWER SUPPLY Unit is disconnected, the SD LED flashes five times in this manner.

• Block diagram of the shutdown signal

Note:
The figures ① - ⑤ indicate the number of times the LED flashes when shutdown occurs in the corresponding route.



• Diagnosis of shutdown

Number of flashes	SD Circuit in Operation	Defective Assy	Reason for Shutdown	Point to be Checked	Possible Defective Part	Remarks
1 time	Communication failure of the driving processor	HD DIGITAL	Communication failure of IC3401	SQ ASIC BLOCK, PANEL FLASH BLOCK	IC3401, IC3301	
			Writing failure of IC3401			Check if version data can be read, using the "GS1" command, after the power is turned on again.
2 times	Communication failure of the IIC line (Check the SD subcategory on the Factory Menu.)	HD DIGITAL	Communication failure of the EEPROM (for retaining 4-Kbyte of data)	MODULE UCOM BLOCK	IC3156, IC3157	
				TMDS BLOCK	IC3001	
		HD AUDIO	Communication failure of the EEPROM (2-kbyte : for backup)	AUDIO AMP BLOCK	IC3754	
			Disconnection of connectors	A2 - D3		Check if the connectors are disconnected or are not connected securely.
			Defective volume IC	HD AUDIO Assy	IC3753	
3 times	Power failure of the driving processor (RST2)	HD DIGITAL	Defective DC-DC converter	DIGITAL DD CON BLOCK	U3601	Check if 3.3-V and 1.2-V power supplies are activated.
			Defective RST IC	PANEL FLASH BLOCK	IC3302 - IC3304	
			Defective IC3401	SQ ASIC BLOCK	IC3401	
		POWER SUPPLY	The 8-V power supply is not activated.			Check if the 8-V power is supplied at Pin 1 of the D11 connector.
4 times	Abnormally high temperature of the panel		Abnormally high temperature of the panel	Ambient temperature		The Panel will be shut down if the sensor detects temperature of 75°C or higher (for the PDP-436P/-506P).
5 times	Audio failure		Speakers' grounding fault	Speaker terminals		Check if the speaker cables are in contact with the chassis, etc.
		HD AUDIO	Defective AMP IC	HD AUDIO Assy	IC3751	
		HD AUDIO	Disconnection of connectors	A1 - P5		Check if the connectors are disconnected or are not connected securely.

• Power-down diagnosis (defective points)

Number of Blinks	PD Circuit in Operation	Defective PCB Assy	Reason for PD (Power-down)	Point to be Checked	Possible Defective Part	Remarks
2	POWER	POWER SUPPLY				
3	SCAN	50 (43) SCAN A, B	VH UVP	SCAN IC	SCAN IC	VH-GNDH short-circuit
		50 (43) Y DRIVE		Y SUS BLOCK	IC2252, IC2253	VSUS-SUSOUT, SUSOUT-SUSGND short-circuit
				VH DC/DC	IC2502, L2501	
			Disconnection of cable detected	CN2001, CN2350		
		50 (43) X DRIVE	VH UVP	IC1202	IC1202	VSUS-SUSOUT, SUSOUT-SUSGND short-circuit
4	SCN-5V	50 (43) SCAN A, B	Disconnection of cable detected	CN2401, CN2402		
		50 (43) Y DRIVE	IC5V UVP	SCAN IC	SCAN IC	
				IC5V DC/DC	Q2605, R2647	
				Y SUS BLOCK	R2352	
6	Y-DCDC	50 (43) Y DRIVE	VOFS UVP	VOFS DC/DC	Q2606, R2619, R2620	
				Y SUS BLOCK	IC2252, IC2253, Q2280, Q2281	MSKS-SUSOUT short-circuit
			Vprst UVP	Vprst Regulator	Q2531, Q2532, IC2535	
7	Y-SUS	50 (43) Y DRIVE	Power-down caused by detection of middle-point voltage	Y RESONANCE BLOCK	IC2101	
				Y SUS BLOCK	Q2221	
8	ADRS	50 (43) ADDRESS	Address power-down	ADDRESS RESONANCE BLOCK	D1634	V+ADR-GND_ADR short-circuit
			Disconnection of cable detected	CN1501, CN3501-CN3504		
9	XDRIVE	50 (43) X DRIVE	Disconnection of cable detected	CN1001		
10	X-DCDC	50 (43) X DRIVE	Disconnection of cable detected	CN1201		
			VRN UVP	VRN DC/DC	Q1323, R1332, R1333	
				X SUS BLOCK	R1204, Q1272	
11	X-SUS	50 (43) X DRIVE	Power-down caused by detection of middle-point voltage	X RESONANCE BLOCK	IC1101	

OVP : **O**VER **V**OLTAGE **P**ROTECT
UVP : **U**NDER **V**OLTAGE **P**ROTECT

7.1.3 OVERVIEW OF PANEL FACTORY MODE

■ Top screen of the Factory Menu for the main unit

MR INFORMATION

< MUTE > key

FUNC. CHECK

< MUTE > key

COMMON ADJ.

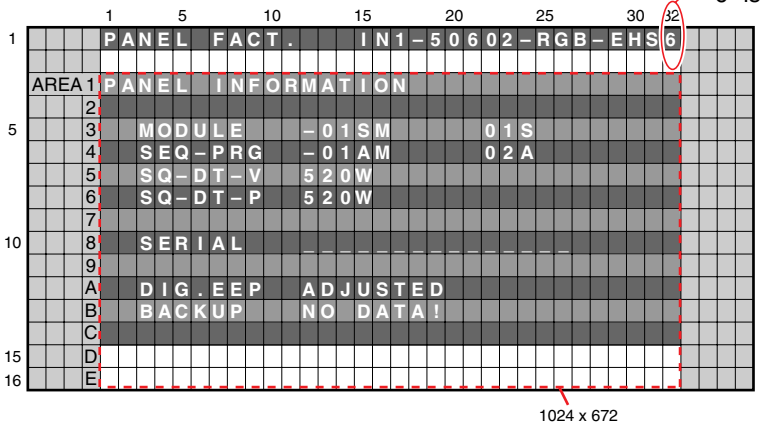
< MUTE > key

PANEL FACTORY

< SET > key

Top screen of the Panel Factory

If a Panel of Generation 6 is connected, "6" is indicated here.



Note: With this model, the structure of Factory mode has been changed, and all items related to the Panel are gathered into PANEL FACTORY mode.

Note: On-screen displays in Factory mode are indicated in white characters on a green background for the PDP-506HD/436HD and subsequent models.

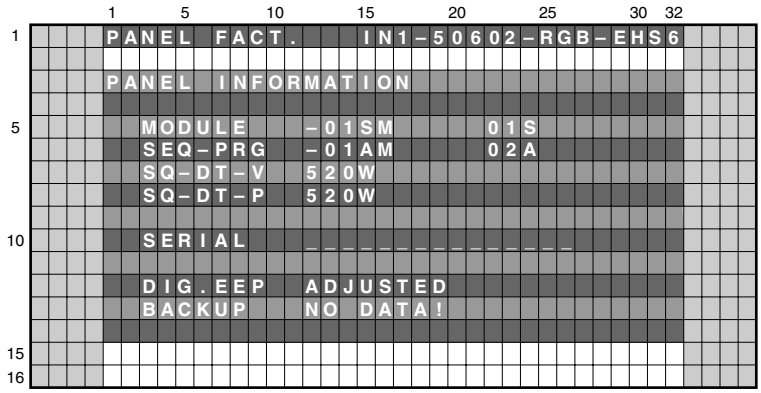
■ Configuration of Panel Factory mode

No.	Submode Name / Submode Items	Adjustable Range	Remarks
1	PANEL INFORMATION		
2	PANEL WORKS		
3	POWER DOWN		
4	SHUT DOWN		
5	PANEL-1 ADJ (+)		
5-1	X-SUS B <=>	120 to 136	Equivalent to XSB
5-2	Y-SUS B <=>	120 to 136	Equivalent to YSB
5-3	Y-SUSTAIL T <=>	120 to 136	Equivalent to YTG
5-4	Y-SUSTAIL W <=>	120 to 136	Equivalent to YTW
5-5	XY-RST W <=>	120 to 136	Equivalent to RSW
5-6	VOL SUS <=>	000 to 255	Equivalent to VSU
5-7	VOL OFFSET <=>	000 to 255	Equivalent to VOF
5-8	VOL RST P <=>	000 to 255	Equivalent to VRP
5-9	SUS FREQ. <=>	MODE1 to MODE8	Equivalent to SFR
6	PANEL-2 ADJ (+)		
6-1	R-HIGH <=>	000 to 511	Equivalent to PRH
6-2	G-HIGH <=>	000 to 511	Equivalent to PGH
6-3	B-HIGH <=>	000 to 511	Equivalent to PBH
6-4	R-LOW <=>	000 to 999	Equivalent to PRL
6-5	G-LOW <=>	000 to 999	Equivalent to PGL
6-6	B-LOW <=>	000 to 999	Equivalent to PBL
6-7	ABL <=>	000 to 255	Equivalent to ABL
7	PANEL REVISE		
7-1	R-LEVEL <=>	LV-0 to LV-7	Equivalent to RRL
7-2	G-LEVEL <=>	LV-0 to LV-7	Equivalent to RGL
7-3	B-LEVEL <=>	LV-0 to LV-7	Equivalent to RBL
8	ETC (+)		
8-1	BACKUP DATA <=>	NO OPRT<=>TRANSFER or ERR	Equivalent to BCP
8-2	DIGITAL EEPROM <=>	NO OPRT<=>DELETE/REPAIR	Equivalent to FAJ/UAJ
8-3	PD INFO. <=>	NO OPRT <=>CLEAR	Equivalent to CPD
8-4	SD INFO. <=>	NO OPRT <=>CLEAR	Equivalent to CSD
8-5	HR-MTR INFO. <=>	NO OPRT <=>CLEAR	Equivalent to CHM
8-6	PM/B1-B5 <=>	NO OPRT <=>CLEAR	Equivalent to CPM
8-7	P-COUNT INFO. <=>	NO OPRT <=>CLEAR	Equivalent to CPC
9	MASK SETUP (+)		
9-1	MASK OFF		Equivalent to MKS+S00
9-2	SGL MASK 01 <=>	<=>V48<=>V50<=>V60<=>P60<=>P70<=>V72<=>V75<=> (Select each sequence.)	Equivalent to MKS+S01
9-3	SGL MASK 02 <=>		Equivalent to MKS+S02
	• • •		• • •
9-62	CMB MASK 08 <=>		Equivalent to MKC+S08
9-63	CMB MASK 09 <=>		Equivalent to MKC+S09

■ Details on submodes related to the panel

The GUI display examples here are those displayed when the main unit is used with the 50-inch model.

1. PANEL INFORMATION



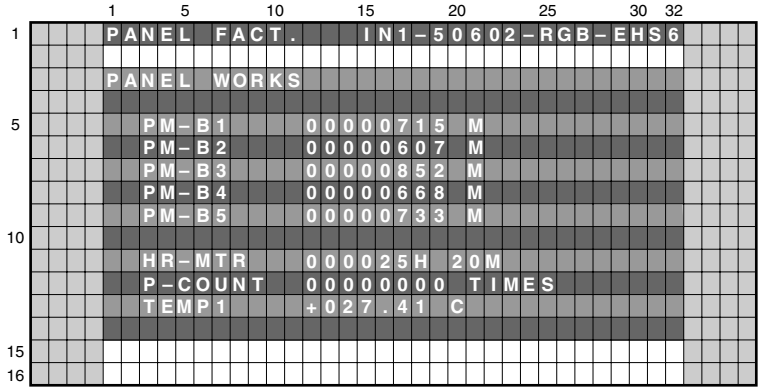
■ Key operation

<DOWN> : Shifting to PANEL WORKS
<UP> : Shifting to MASK SETUP (+)
<SEL> : MASK ON/OFF
<L/R> : Updating displayed information

The version of the microcomputer of the panel, serial number of the main unit, adjustment values of the main unit, and backup status are displayed.

2. PANEL WORKS

Note:
Screen display " PANEL_FACT.___IN1-50602-RGB-EHS6".
Refer to service manual of Media Receiver.

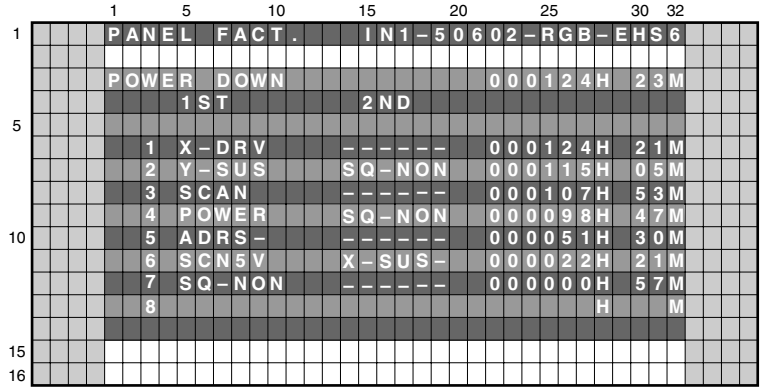


■ Key operation

<DOWN> : Shifting to POWER DOWN
<UP> : Shifting to PANEL INFORMATION
<SEL> : MASK ON/OFF
<L/R> : Updating displayed information

- The data from the pulse meter for each block from PM-B1 to PM-B5 are indicated. The values stored in the EEPROM (3 bytes each) are each converted into a decimal number, and the higher-order 8 digits are displayed (that means that the lowest-order digit represents millions).
- TEMP1: Indicates the temperature of the panel. By your pressing the L or R key, the temperature value can be updated.

3. POWER DOWN



■ Key operation

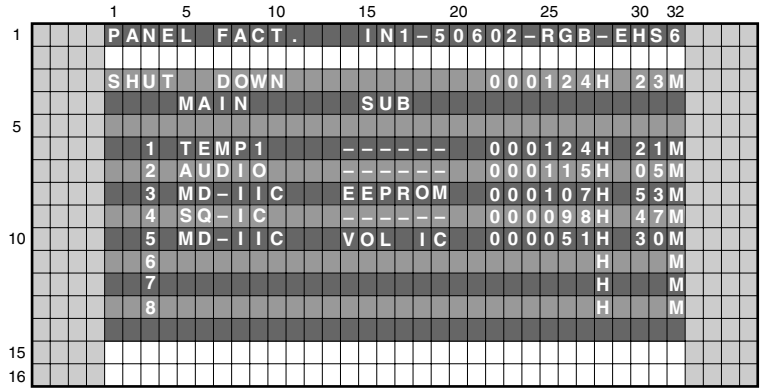
<DOWN> : Shifting to SHUTDOWN
<UP> : Shifting to PANEL WORKS
<SEL> : MASK ON/OFF
<L/R> : Updating displayed information

• Basically, data acquired with the command QPD are displayed in the columns "1ST" and "2ND, with the values from the hour meter when the power-down occurred.

<Causes of power-down and corresponding OSD indications>

Cause of power-down	OSD Indication	Cause of power-down	OSD Indication
POWER SUPPLY Unit	P-PWR	ADDRESS Assy	ADRS
SCAN Assy	SCAN	X-DRIVE Assy	X-DRV
5V power for SCAN	SCN5V	DCDC for X drive	X-DCDC
Not used		X-SUS	X-SUS
DCDC for Y drive	Y-DCDC	Sequence drive stopped	SQ-NON
Y-SUS	Y-SUS	Specification inability	UNKNOW

4. SHUT DOWN



■ Key operation

<DOWN> : Shifting to PANEL-2ADJ (+)
<UP> : Shifting to POWER DOWN
<SEL> : MASK ON/OFF
<L/R> : Updating displayed information

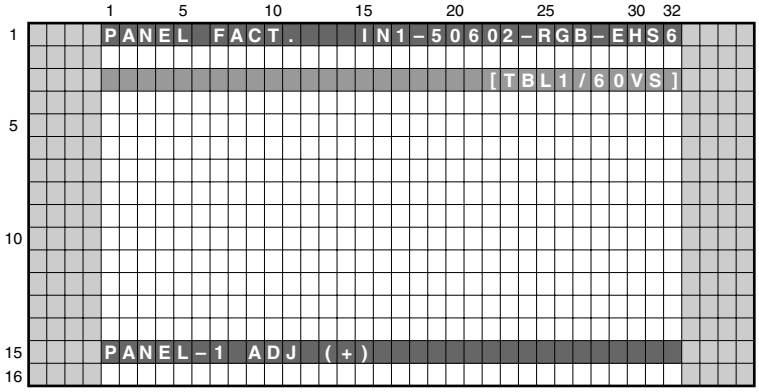
• Basically, data acquired with the command QSD (for MDU-IIC, subcategory data are also displayed) are displayed with the values from the hour meter when the shutdown occurred.

<Causes of shutdown and corresponding OSD indications>

Cause of shutdown (main)	OSD Indication
SEQUENCE PROCESSOR	SQ-IC
MDU-IIC	MDU-IIC (with subcategory)
Abnormality in RST2	RST2
Panel having high temperature	TEMP1
Short-circuited speaker	AUDIO

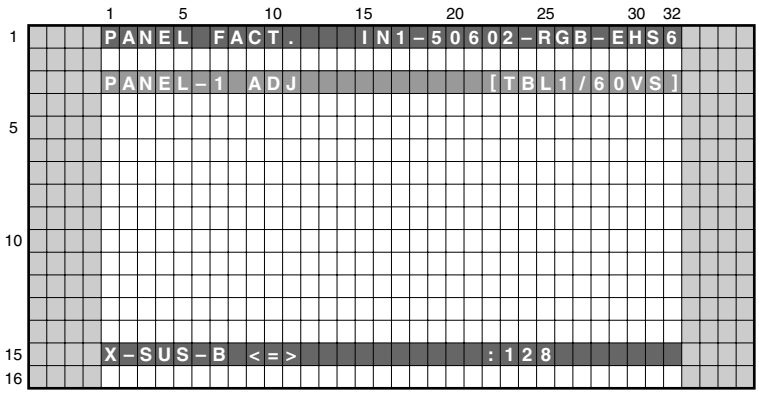
Cause of shutdown (sub)	OSD Indication
EEPROM	EEPROM (IC3156)
BACKUP	BACKUP (IC3754)
DAC	DAC (IC3302 to IC3304)
Audio IC	VOL-IC (IC3158)
DVI	DVI

5. PANEL-1 ADJ



■ Key operation

<DOWN> : Shifting to PANEL-2 ADJ (+)
<UP> : Shifting to POWER DOWN
<SET> : Shifting to the next nested layer
<SEL> : MASK ON/OFF



■ Key operation

<DOWN> : Shifting to the next item
<UP> : Shifting to the previous item
<RIGHT> : Adding by one to the adjustment value
<LEFT> : Subtracting by one from the adjustment value
<VOL+> : Adding by 10 to the adjustment value
<VOL-> : Subtracting by 10 from the adjustment value
<SET> : Determining the adjustment value and shifting to the upper layer
<SEL> : MASK ON/OFF

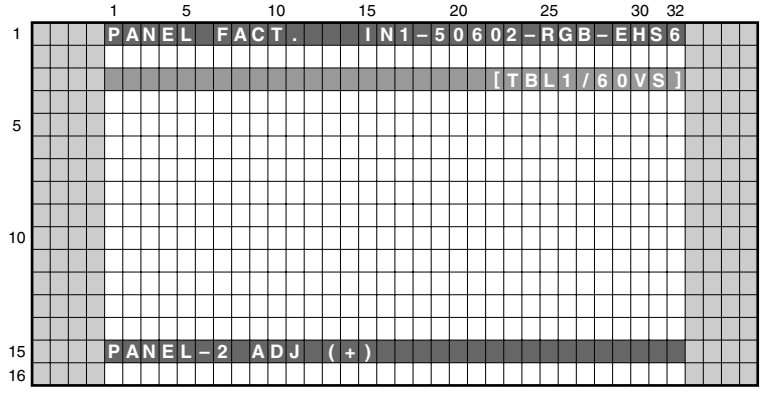
<Drive-sequence indications and indications for the ABL/WB tables>
(The OSD indications are displayed at the right part of the third line for submode PANEL-1 ADJ and subsequent submodes.)

Type of WB/ABL Tables		Type of Drive Sequences					
		Standard Video/MASK ON		Nonstandard Video		PC	
TBL1		48VS		---		60PS	Not used for consumer products
TBL2		50VS		50VN		70PS	
TBL3		60VS		60VN			
TBL4		72VS	Only Mask indication	---			
		75VS		75VN			

<Lower-layer items of PANEL-1 ADJ>

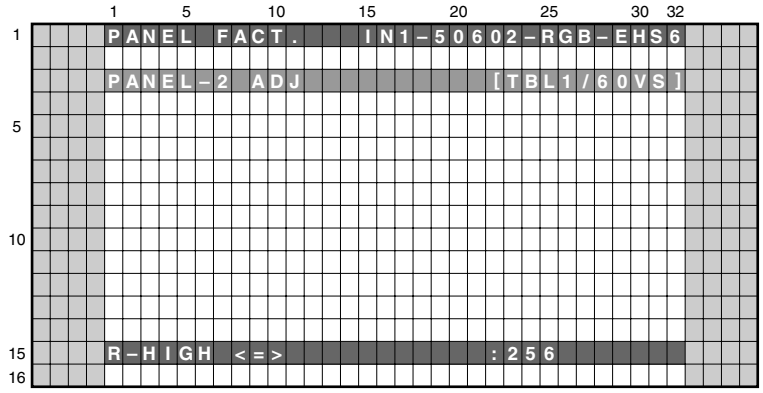
No.	Items	Adjustment/Setting Value	Remarks
1	X-SUS B <=>	120 to 136	Equivalent to XSB
2	Y-SUS B <=>	120 to 136	Equivalent to YSB
3	Y-SUSTAIL T <=>	120 to 136	Equivalent to YTG
4	Y-SUSTAIL W <=>	120 to 136	Equivalent to YTW
5	XY-RST W <=>	120 to 136	Equivalent to RSW
6	VOL SUS <=>	000 to 255	Equivalent to VSU
7	VOL OFFSET <=>	000 to 255	Equivalent to VOF
8	VOL RST P <=>	000 to 255	Equivalent to VRP
9	SUS FREQ. <=>	<=>MODE1 to MODE8<=>	Equivalent to SFR

6. PANEL-2 ADJ



■ Key operation

<DOWN> : Shifting to PANEL REVISE
<UP> : Shifting to PANEL-1 ADJ (+)
<SEL> : MASK ON/OFF
<SET> : Shifting to the next nested layer



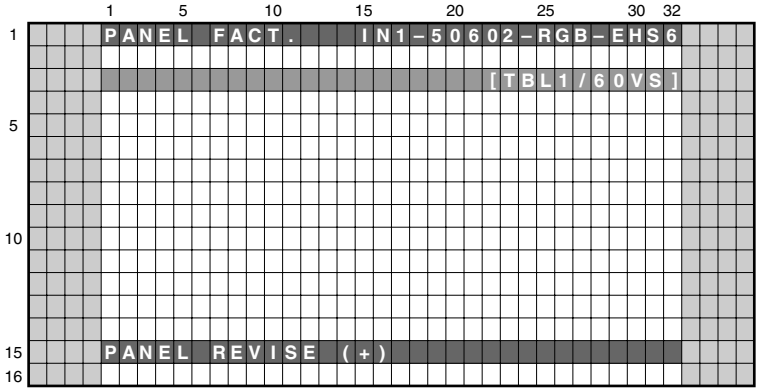
■ Key operation

<DOWN> : Shifting to the next item
<UP> : Shifting to the previous item
<RIGHT> : Adding by one to the adjustment value
<LEFT> : Subtracting by one from the adjustment value
<VOL+> : Adding by 10 to the adjustment value
<VOL-> : Subtracting by 10 from the adjustment value
<SET> : Determining the adjustment value and shifting to the upper layer
<SEL> : MASK ON/OFF

<Lower-layer items of PANEL-2 ADJ>

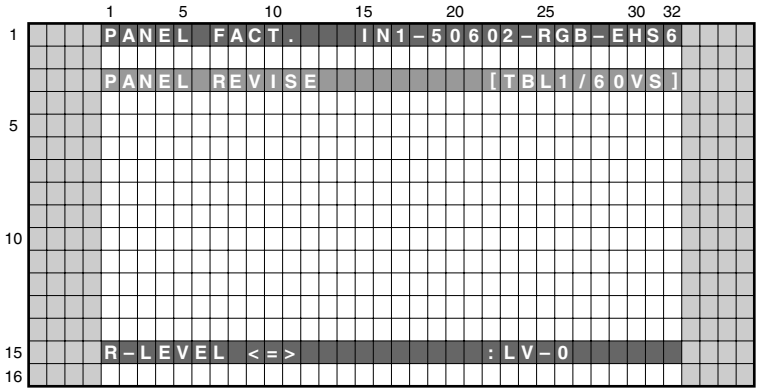
No.	Items	Adjustment/Setting Value	Remarks
1	R-HIGH <=>	000 to 511	Equivalent to PRH
2	G-HIGH <=>	000 to 511	Equivalent to PGH
3	B-HIGH <=>	000 to 511	Equivalent to PBH
4	R-LOW <=>	000 to 999	Equivalent to PRL
5	G-LOW <=>	000 to 999	Equivalent to PGL
6	B-LOW <=>	000 to 999	Equivalent to PBL
7	ABL <=>	000 to 255	Equivalent to ABL

7. PANEL REVISE



■ Key operation

<DOWN> : Shifting to ETC.(+)
<UP> : Shifting to PANEL-2 ADJ (+)
<SEL> : MASK ON/OFF
<SET> : Shifting to the next nested layer



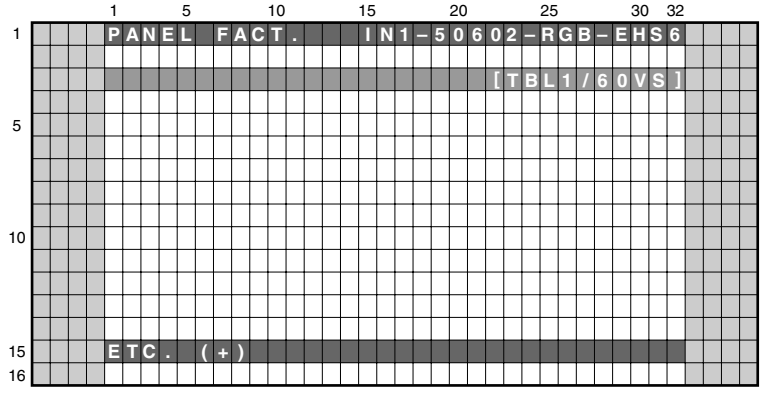
■ Key operation

<DOWN> : Shifting to the next item
<UP> : Shifting to the previous item
<RIGHT> : Adding by one to the adjustment value
<LEFT> : Subtracting by one from the adjustment value
<VOL+> : Adding by 10 to the adjustment value
<VOL-> : Subtracting by 10 from the adjustment value
<SET> : Determining the setting value and shifting to the upper layer
<SEL> : MASK ON/OFF

<Lower-layer items of PANEL REVISE>

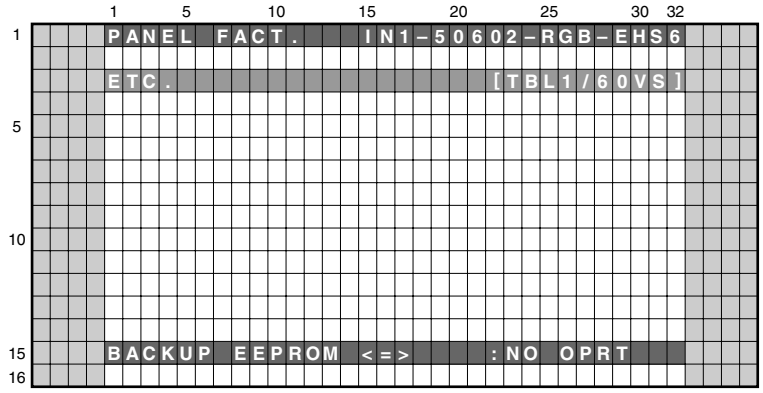
No.	Items	Adjustment/Setting Value	Remarks
1	R-LEVEL <=>	<=>LV-0 to LV-7<=>	Equivalent to RRL
2	G-LEVEL <=>	<=>LV-0 to LV-7<=>	Equivalent to RGL
3	B-LEVEL <=>	<=>LV-0 to LV-7<=>	Equivalent to RBL

8. ETC.



■ Key operation

<DOWN> : Shifting to MASK SETUP (+)
<UP> : Shifting to PANEL REVISE (+)
<SEL> : MASK ON/OFF
<SET> : Shifting to the next nested layer



■ Key operation

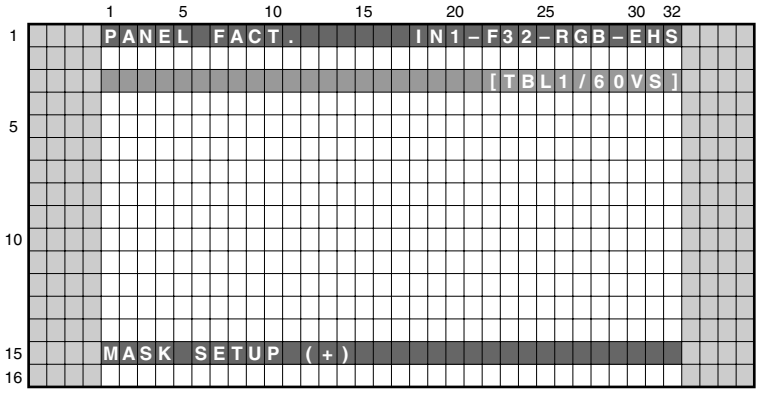
<DOWN> : Shifting to the next item
<UP> : Shifting to the previous item
<RIGHT> : Adding by one to the adjustment value
<LEFT> : Subtracting by one from the adjustment value
<SET> : Determining the setting value and shifting to the upper layer
<SEL> : MASK ON/OFF

<Lower-layer items of ETC.>

No.	Items	Adjustment/Setting Value	Remarks
1	BACKUP DATA <=>	<=>NO OPRT<=>TRANSFER<=>	"ERR" is indicated when no data are in the backup EEPROM. To activate the option to select TRANSFER, press the SET key about 5 seconds. (There is a situation resting more than 5 seconds.)
2	DIGITAL EEPROM <=>	<=>NO OPRT<=>REPAIR/DELETE<=>	"DELETE" is indicated when the main unit has been already adjusted. To activate the option to select REPAIR/DELETE, press the SET key about 5 seconds. (There is a situation resting more than 5 seconds.)
3	PD INFO. <=>	<=>NO OPRT<=>CLEAR<=>	To activate the option to select CLEAR, repeatedly press the SET key about 5 seconds. (There is a situation resting more than 5 seconds.)
4	SD INFO. <=>	<=>NO OPRT<=>CLEAR<=>	
5	HR-MTR INFO. <=>	<=>NO OPRT<=>CLEAR<=>	
6	PM/B1-B5 <=>	<=>NO OPRT<=>CLEAR<=>	
7	P-COUNT INFO. <=>	<=>NO OPRT<=>CLEAR<=>	

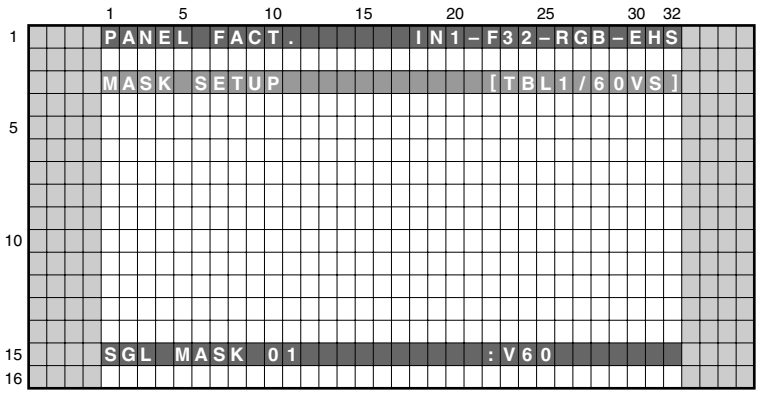
- "NO OPRT" is selected when this submode is entered (to avoid accidental misoperation).
- When each item is set, the process starts then the unit shifts to the upper layer. (When NO OPRT is determined, the unit will shift to the upper layer without doing anything.)
- When data are set to be backed up, if the digital EEPROM has not been adjusted, do the operation of LED pattern No. 7.

9. MASK SETUP



■ Key operation

<DOWN> : Shifting to PANEL INFORMATION
<UP> : Shifting to ETC. (+)
<SEL> : MASK ON/OFF
<SET> : Shifting to the next nested layer



■ Key operation

<DOWN> : Shifting to the next MASK
<UP> : Shifting to the previous MASK
<RIGHT> : Changing MASK sequence (+)
<LEFT> : Changing MASK sequence (-)
<SET> : Determining the setting value and shifting to the upper layer
<SEL> : MASK ON/OFF

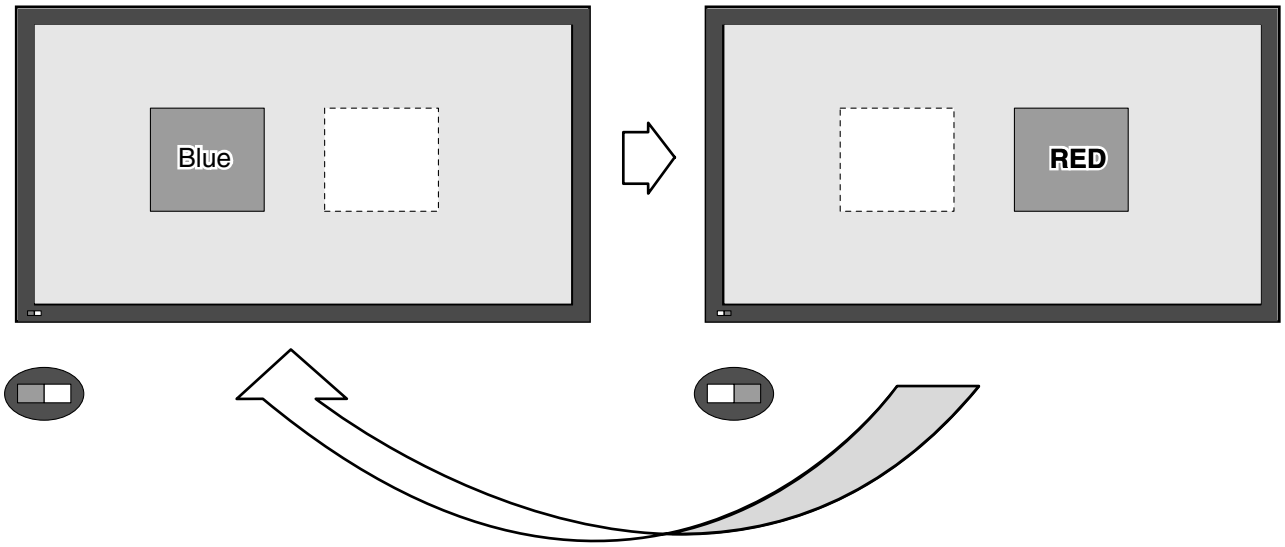
<Lower-layer items of MASK SETUP>

No.	Items	Adjustment/Setting Value	Remarks
1	MASK OFF		Equivalent to MKS+S00
2	SGL MASK 01 <=>	<=>48V<=>50V<=>60V<=> 60P<=>70P<=>72V<=>75V<=>	Equivalent to MKS+S01
3	SGL MASK 02 <=>		Equivalent to MKS+S02
4	• • •		• • •
5	CMB MASK 09 <=>		Equivalent to MKC+S08
6	CMB MASK 10 <=>		Equivalent to MKC+S09

• With the keys <LEFT> and <RIGHT>, the Panel drive sequence in the MASK indication is changed in the following way:
<=>48V<=>50V<=>60V<=>72V<=>75V<=>60P<=>70P<=>

7.1.4 OPERATION WHEN THE MEDIA RECEIVER IS NOT CONNECTED

As the connection conditions of the system cables (MDR cable, DVI cable) are usually detected, if no connection, such as cable disconnection, is detected, a warning indication (alternate flashing of the red and blue areas) is displayed on the mask screen, and the red and green LEDs flash alternately. Then after about 30 seconds, the power is automatically turned off.



Alternate flashing at intervals of about 1 second

To operate the panel without the Media Receiver, there are the following two ways:

1. Operation-without-the-Media-Receiver mode

Input the "SYS S00" RS232C command. The status of the LEDs changes to that in normal operation mode.

Note: Turning the AC switch to OFF then ON also maintains this mode. However, once the unit is connected with the Media Receiver using the System cable, this mode is automatically canceled.

2. DVI mode

Turn the unit on while DVI SG signals are being input with only the DVI connecter connected. After a warning is displayed for about 5 seconds, the unit is ready to display the screen of the input signal. (Blue LED lit)

Notes: • Although the output from XGA (43 inch) and WXGA (50 inch) can be input to the unit, this is not a mode open to general users. (With some signals, errors such as power-down may occur.)

7.1.5 POWER ON/OFF FUNCTION FOR THE LARGE-SIGNAL SYSTEM

Function: To prevent a power-down from being generated, operation of only the digital-signal processing and audio circuits are enabled, and power is not supplied to the panel driving system (large-signal system).

Usages: 1. In a case where a check is required of signals' being correctly output to the driving systems during a repair, etc.
2. In a case where diagnosis is required for judging whether the power to the large-signal system or small-signal system has been down when a power-down occurred

Methods: 1. Short-circuit the points (see Fig. 4 below) on the face and on the reverse side of the HD DIGITAL Assy.
2. Issue the "DRV S00" RS-232C command. (Command for turning the function off: DRV S01)

Notes:
- When the power to the large-signal system is off, as the PD signal is muted, power-downs other than PS_PD are not activated.
- As soon as the clips are removed while the power to the large-signal system is off, a power-down will occur. Be sure to turn the power off before removing the clips.
- While this function is activated with RS-232C commands, it is possible to issue "DRV S01" (for turning the function off) while the power is on. However, as it may damage the unit, turn the power off before issuing the "DRV S01" command.
- Although the "DRV S00/S01" RS-232C commands are valid during Standby mode, once the main power is turned off, the unit will return to "DRV S01."

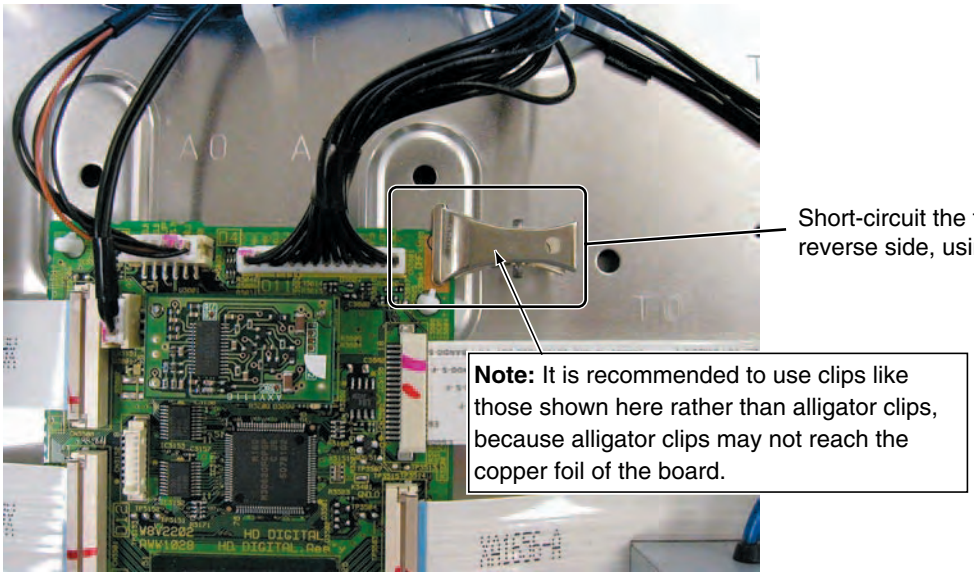


Fig. 4 Position of DRIVE OFF

7.1.6 BACKUP WHEN THE MAIN UNIT IS ADJUSTED

■ Outline

Adjustment data set at the factory are stored in the EEPROM (IC****/4K) on the HD DIGITAL Assy. Those adjustment data are automatically backed up in the EEPROM (backup EEPROM: IC****) on the HD AUDIO Assy. Therefore, even if the HD DIGITAL Assy is replaced, the adjustment data can be restored by copying the backup data, which enables you to omit newly performing adjustments on the main unit.

■ Data to be backed up

- Voltage margin adjustment values
- Data on the hour meter
- Upper limit of power-adjustment value
- Data on the pulse meter
- Panel WB adjustment values
- Serial number
- Drive waveform adjustment values
- Data of the P-ON counter
- PD/SD histories

■ How to copy the backup data

1. When the HD DIGITAL Assy is replaced with that for service (normal servicing)
   (In a case where no data are on the DIG. EEP, and backup data have been adjusted)

   Command: "BCP" (Effective during FAY)
   Factory Menu

   PANEL INFORMATION
   ▼ (down)
   • • •
   ▼ (down)
   ETC. (+)
   [set]
   BACKUP DATA: NO OPRT
   >> (right)
   BACKUP DATA: TRANSFER
   [set] (Press and hold for 5 seconds.)

   - After the HD DIGITAL Assy is replaced with that for service, check that “DIG. EEP: NO DATA!” is displayed on the Panel Information screen of the Factory Menu.
   - If this command is not executed, the red LED lights, and the blue LED flashes, to warn you that copying of the backup adjustment data for the main unit failed.
   - If both the HD DIGITAL Assy and HD AUDIO Assy are to be replaced, first replace the HD AUDIO Assy and set the unit to Standby mode. Then replace the HD DIGITAL Assy.

2. In a case where a HD DIGITAL Assy that was mounted on another unit is to be reused as a service part.

   Command: "FAJ" (Effective during FAY)
   Factory Menu: PANEL FACT => ETC => DIGITAL EEPROM: DELETE

   PANEL INFORMATION
   ▼ (down)
   • • •
   ▼ (down)
   ETC. (+)
   [set]
   BACKUP DATA: NO OPRT
   ▼ (down)
   DIGITAL EEPROM: NO OPRT
   >> (right)
   DIGITAL EEPROM: REPAIR
   [set] (Press and hold for 5 seconds.)

   - If the HD DIGITAL Assy of Unit 1 is mounted to be reused in Unit 2 to be repaired, and Unit 2 enters Standby mode, the adjustment data and histories stored in Unit 1 are erased, and those of Unit 2 are copied. Once overwritten, the original data will not be restored. After the Assy is replaced, be sure to enter Factory mode, using the remote control unit for servicing, and perform the procedures described herein. Or, before mounting an Assy to be reused as a service Assy, perform these procedures then mount it on the product to be repaired.

3. In a case where the HD DIGITAL Assy is replaced with one for servicing because of a defective EEPROM on the original Assy and manual adjustments are to be performed
   (In a case where no data are stored in the HD DIGITAL Assy or as backup, and the values that have been manually adjusted on Service Menu are to be applied as adjustment data for the main unit)

Command: "UAJ" (Effective during FAY)
Factory Menu

PANEL INFORMATION
▼ (down)
• • •
▼ (down)
ETC. (+)
[set]
BACKUP DATA: NO OPRT
▼ (down)
DIGITAL EEPROM: NO OPRT
>> (right)
DIGITAL EEPROM: REPAIR
[set] (Press and hold for 5 seconds.)

- If the HD DIGITAL Assy with which adjustment data for the main unit have been copied is mounted, the above procedures are not necessary after manual adjustment.
  (The indication "DIGITAL EEPROM: REPAIR" will not be displayed.)

7.1.7 HOW TO CLEAR HISTORY DATA

■ Clearing data on various histories when the HD DIGITAL Assy is replaced

Other than adjustment data for the main unit, data to be backed up include the accumulated power-on time and a history of defective parts, which are data updated and stored in memory. Among those data, some are required to be cleared when the HD DIGITAL Assy is replaced for servicing, as shown below:

Item	Backed-up data	Type of servicing			RS-232C command
		Panel replacement	Replacement of the power-supply block	Others	
Hour meter	Accumulated display	To be cleared	Not to be cleared	Not to be cleared	CHM
SD history	Point where an SD occurred and data on the hour meter	To be cleared	Not to be cleared	Not to be cleared	CSD
PD history	Point where a PD occurred and data on the hour meter	To be cleared	Not to be cleared	Not to be cleared	CPD
Pulse meter	Accumulated number of pulses of the Panel (5 blocks)	To be cleared (essential)	Not to be cleared	Not to be cleared	CPM
Accumulated number of power-ons	Accumulated number of RELAY_ONs	Not to be cleared	To be cleared (essential)	Not to be cleared	CPC

Notes:

1: With the PDP-506P/436P and subsequent models, because various compensation functions use pulse-meter data for calculating compensation values, if related Assys are replaced, data on various histories must be cleared.

2: To clear data using RS-232C commands, after entering Factory mode (by sending FAY or PFY), issue a corresponding command. Otherwise, the command will not be executed.

How to clear the history for each item on the Factory Menu

Start point of Panel Factory

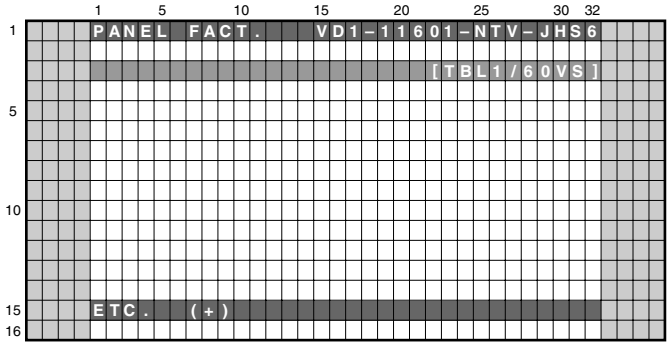
PANEL INFORMATION

▼ (down)

• • •

▼ (down)

ETC. (+)



[set]

BACKUP DATA

▼ (down)

DIGITAL EEPROM

▼ (down)

Clearing the PD history

PD INFO: NO OPRT >> (right) PD INFO: CLEAR

[set] (Press and hold for 5 seconds.)

▼ (down)

Clearing the SD history

SD INFO: NO OPRT >> (right) SD INFO: CLEAR

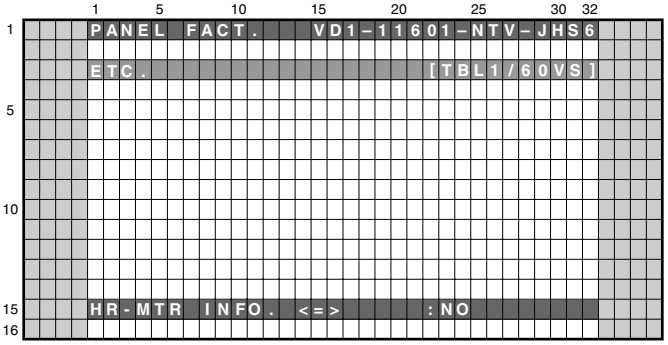
[set] (Press and hold for 5 seconds.)

▼ (down)

Clearing the data on the hour meter

HR-MTR INFO: NO OPRT >> (right) HR-MTR INFO: CLEAR

[set] (Press and hold for 5 seconds.)



▼ (down)

Clearing the data on the pulse meter

PM/B1-BS INFO: NO OPRT >> (right) PM/B1-BS INFO: CLEAR

[set] (Press and hold for 5 seconds.)

▼ (down)

Clearing the data on the number of power-ons

P COUNT INFO: NO OPRT >> (right) P COUNT INFO: CLEAR

[set] (Press and hold for 5 seconds.)

7.1.8 DISASSEMBLY

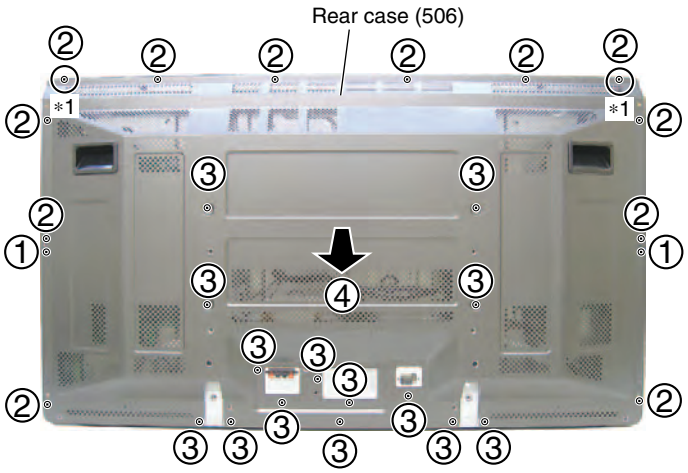
Note : Even if the unit shown in the photos and illustrations in this manual may differ from your product, the procedures described here are common.

1 Rear Case (506)

① Remove the two screws.
② Remove the tweleve screws.
③ Remove the fourteen screws.

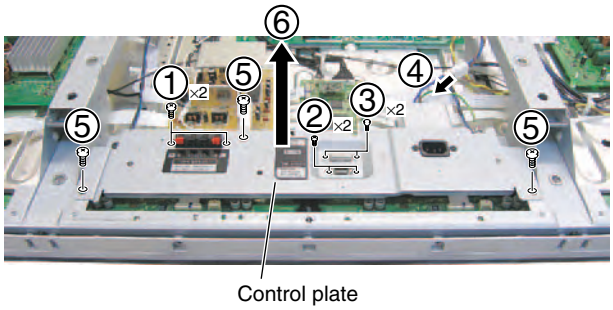
Note ∗1:
When reassembling, first secure the screws for these holes to position the rear case (506) correctly.
The hole of a left side, the screw tighten the hole of the right side next first.

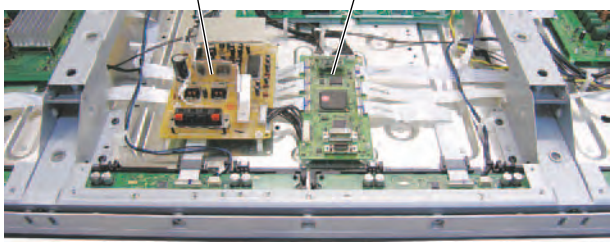
④ Remove the rear case (506).



2 Control Plate Section

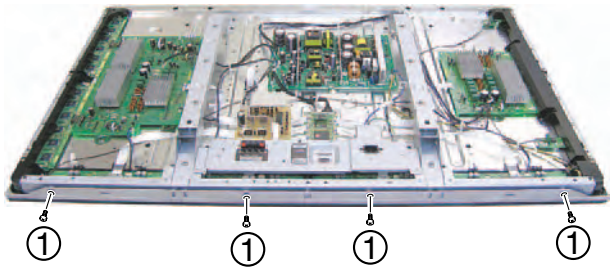
① Remove the two screws.
② Remove the two screws.
③ Remove the two hexagon head screws.
④ Disconnect the connector.
⑤ Remove the three screws.
⑥ Remove the control plate.



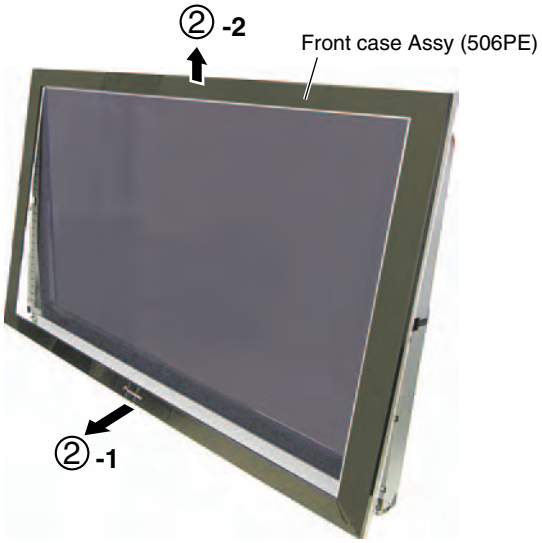


3 Front Case Assy (506PE)

① Remove the four screw rivets.

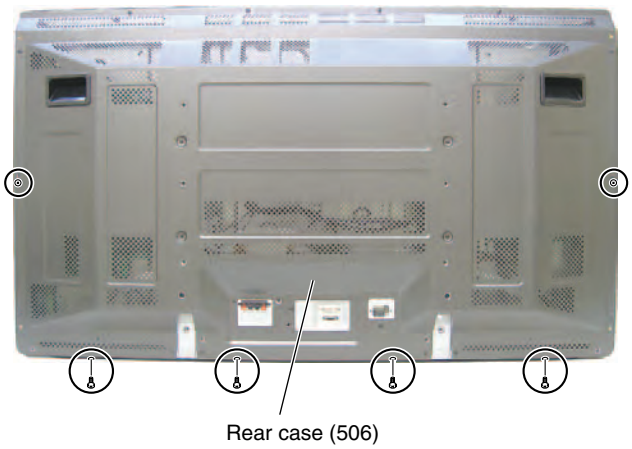


② Remove the front case Assy (506PE).



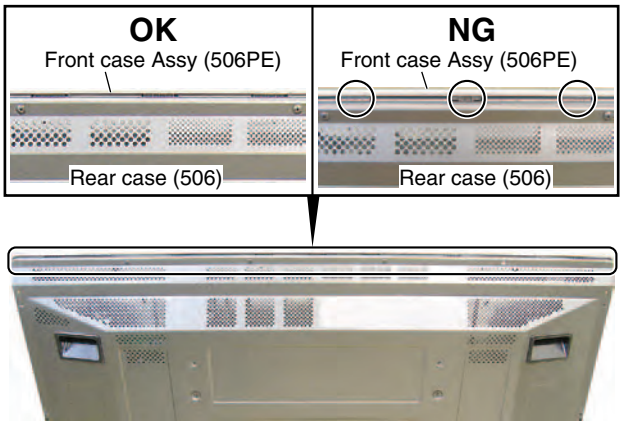
• When only the front case assy (506PE) is to be removed

The front case assy (506PE) can be removed without removing the rear case (506) beforehand.
Remove the two screws and four screw rivets shown below:



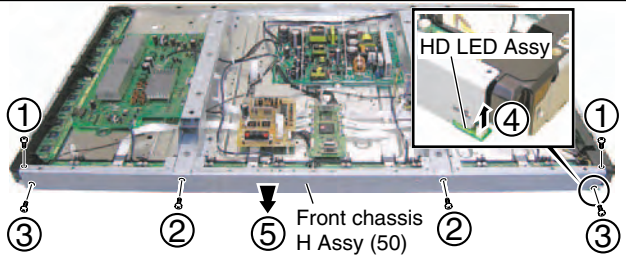
• Note when the front case assy (506PE) is to be reattached

① Hook the upper part of the Front Case Assy (506PE) on the upper part of the Front Panel, leaving a fist-sized gap between the bottom and the lower part of the Front Case Assy.
② Push the couplers of the Front Case Assy (506PE) into the rear case (506).
③ Make sure that all the couplers have been pushed into the rear case (506).



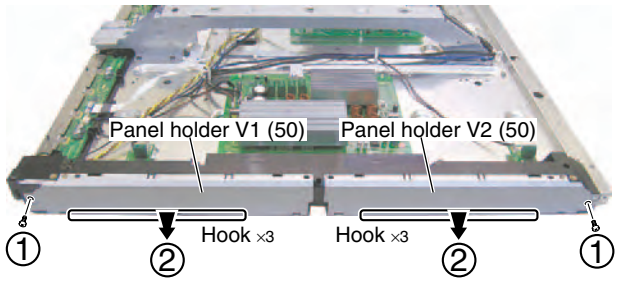
4 Front Chassis H Assy (50)

① Remove the two screws.
② Remove the two screws.
③ Remove the two screws.
④ Disconnect the connector.
⑤ Remove the front chassis H Assy (50).

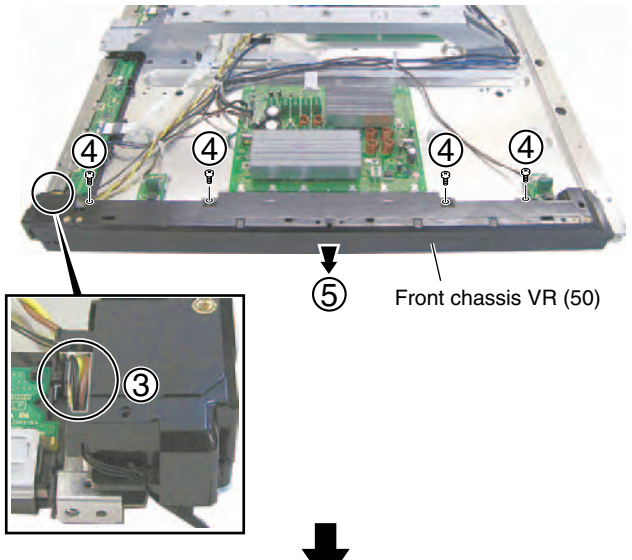


5 SUS CLAMP 1 and 2 Assys

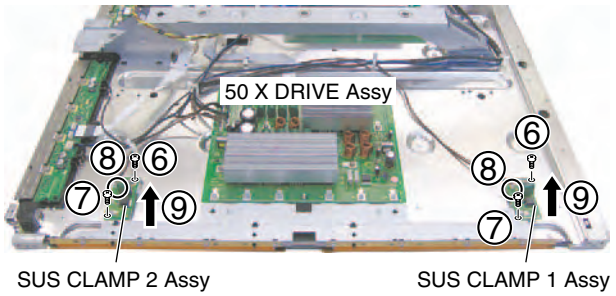
① Remove the two screws.
② Remove the panel holder V1 (50) and V2 (50)s.
(Unhook the six hooks.)



③ Release the housing wire.
④ Remove the four screws.
⑤ Remove the front chassis VR (50).



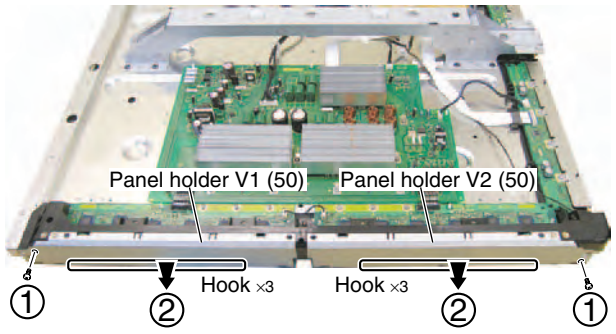
⑥ Remove the two screws.
⑦ Remove the two screws.
⑧ Unhook the two PCB spacers.
⑨ Remove the SUS CLAMP 1 and 2 Assys.



6 50 SCAN A and B Assys

① Remove the two screws.

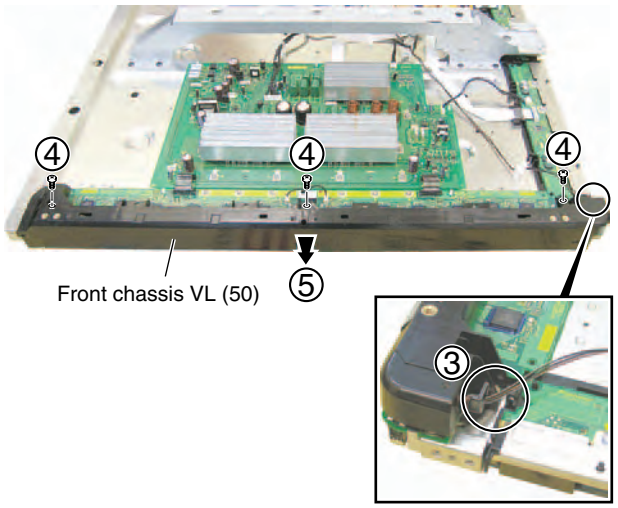
② Remove the panel holder V1 (50) and V2 (50)s.
(Unhook the six hooks.)



③ Release the housing wire.

④ Remove the three screws.

⑤ Remove the front chassis VL (50).

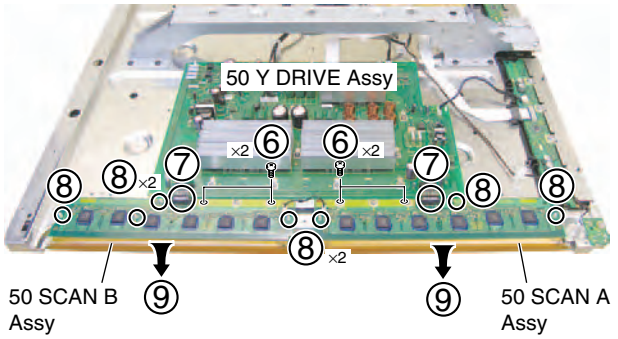


⑥ Remove the four screws.

⑦ Disconnect the two pin connectors.

⑧ Unhook the seven PCB spacers.

⑨ Remove the 50 SCAN A and B Assys.



7.2 IC

• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

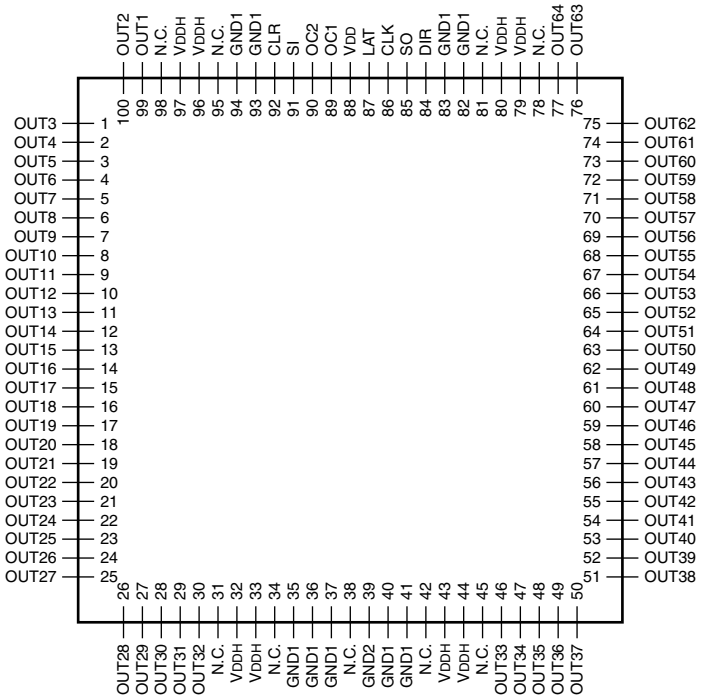
● **List of IC**

AN16025A, TC7SH08FUS1, TC74VHC00FTS1, AXF1140, AXF1142, TC74VHC08FTS1, AXF1141, M62334FP, TC74VHC123AFTS1, PST3610UR, PEG122C, NJW1183L

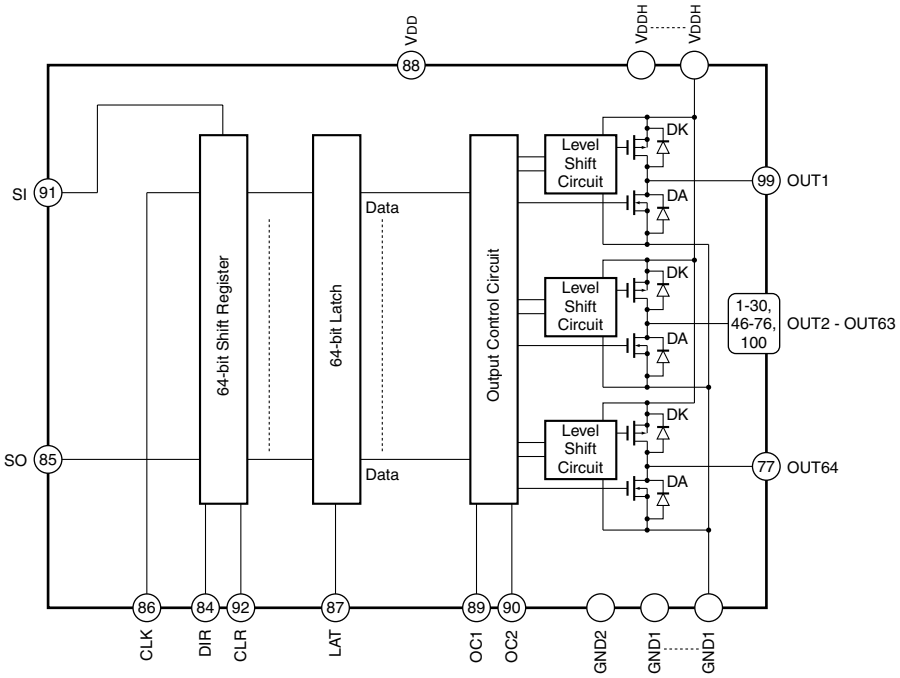
■ AN16025A (50 SCAN A ASSY : IC2701 - IC2706) (50 SCAN B ASSY : IC2801 - IC2806)

• Plasma Display Panel IC

● **Pin Arrangement (Top view)**



● **Block Diagram**



● Pin Function

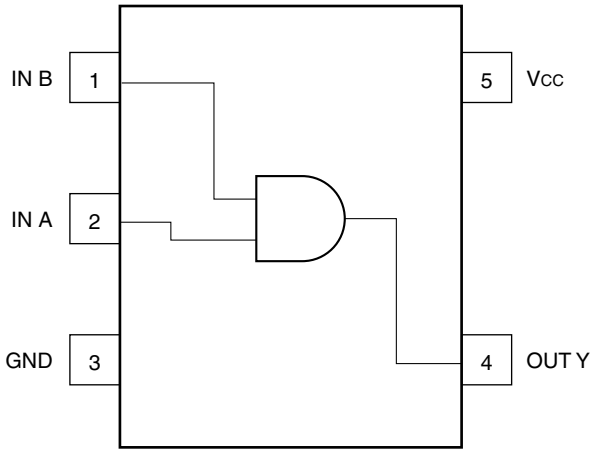
No.	Pin Name	I/O	Pin Function
1 - 30	OUT3 - OUT32	O	High-voltage push-pull output
31	N.C.	–	Not connected
32 - 33	V_{DDH}	–	High-voltage circuit supply
34	N.C.	–	Not connected
35 - 37	GND1	–	Ground
38	N.C.	–	Not connected
39	GND2	–	Ground
40 - 41	GND1	–	Ground
42	N.C.	–	Not connected
43 - 44	V_{DDH}	–	High-voltage circuit supply
45	N.C.	–	Not connected
46 - 77	OUT33 - OUT64	O	High-voltage push-pull output
78	N.C.	–	Not connected
79 - 80	V_{DDH}	–	High-voltage circuit supply
81	N.C.	–	Not connected
82 - 83	GND1	–	Ground
84	DIR	I	Setup of shift register shift direction L = Shift into reverse (SO → SI) H = Shift forward (SI → SO)
85	SO	I/O	Serial data input / output
86	CLK	I	Serial clock input Fetch SI or SO data to shift register by CLK rise edge
87	LAT	I	LAT data input L = Transfer shift register data to output latch H = Hold data to output latch
88	V_{DD}	–	Logic supply
89	OC1	I	Output control Control output according to the right truth value table
90	OC2	I	
91	SI	I/O	Serial data input / output
92	CLR	I	All output reset CLR pin : L → Normal operation CLR pin : H → All output High
93 - 94	GND1	–	Ground
95	N.C.	–	Not connected
96 - 97	V_{DDH}	–	High-voltage circuit supply
98	N.C.	–	Not connected
99 - 100	OUT1 - OUT2	O	High-voltage push-pull output

OC1	OC2	OUT
L	L	ALL Hi-Z
L	H	DATA
H	L	ALL L
H	H	ALL H

■ TC7SH08FUS1 (50 SCAN B ASSY : IC2807)

• 2-input AND Gate

● Pin Arrangement (Top view) / Block Diagram



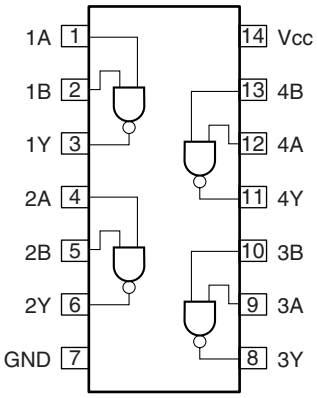
● Truth Table

A	B	Y
L	L	L
L	H	L
H	L	L
H	H	H

■ TC74VHC00FTS1 (50 X DRIVE ASSY : IC1002)

• Quad 2-Input NAND Gate

● Block Diagram



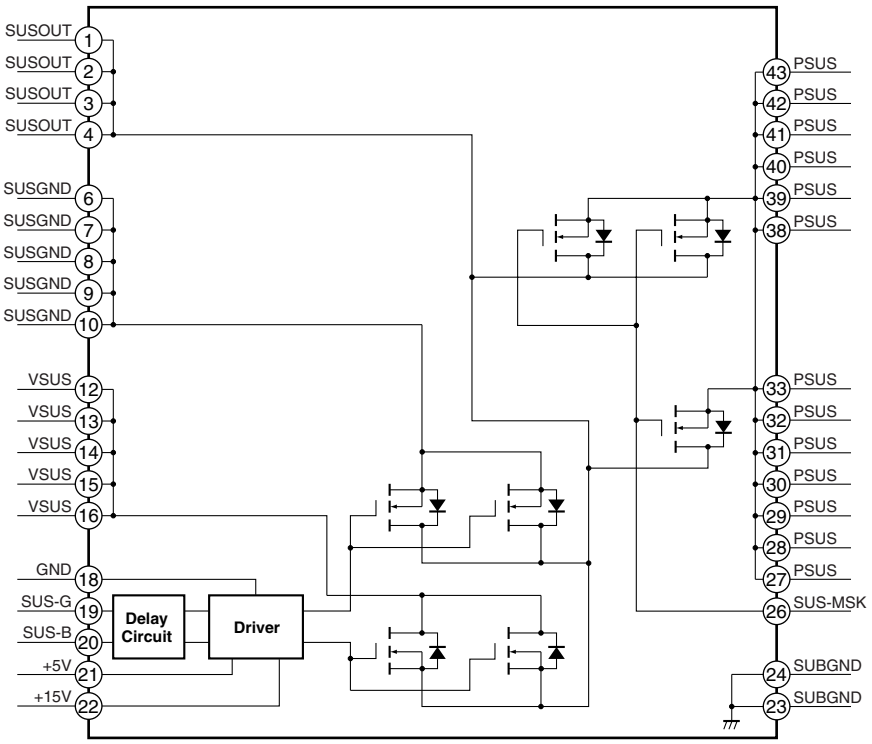
● Truth Table

A	B	Y
L	L	H
L	H	H
H	L	H
H	H	L

■ AXF1140 (50 X DRIVE ASSY : IC1202)

• X Mask Module

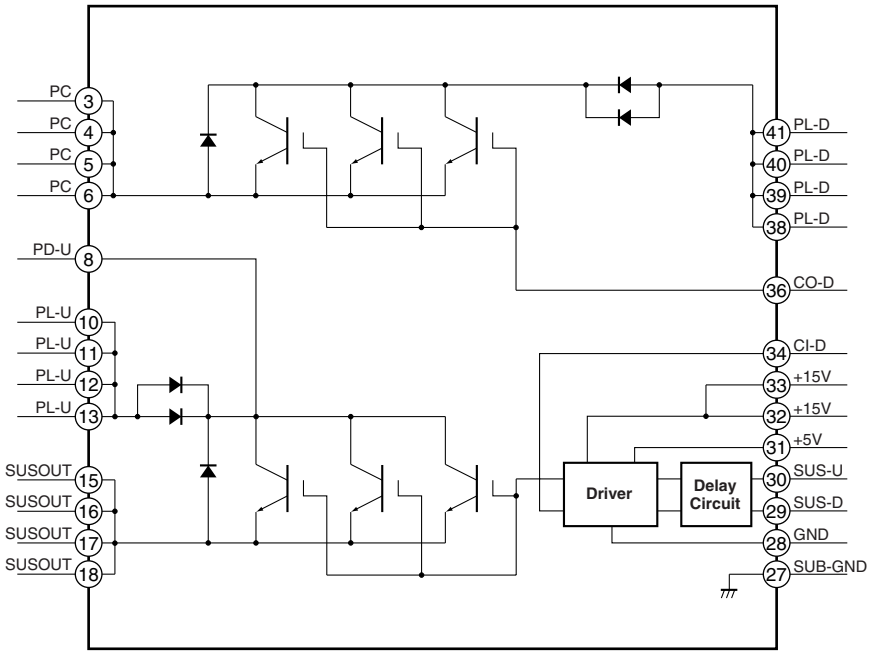
● Block Diagram



■ AXF1142 (50 X DRIVE ASSY : IC1101)
(50 Y DRIVE ASSY : IC2101)

• DK Module

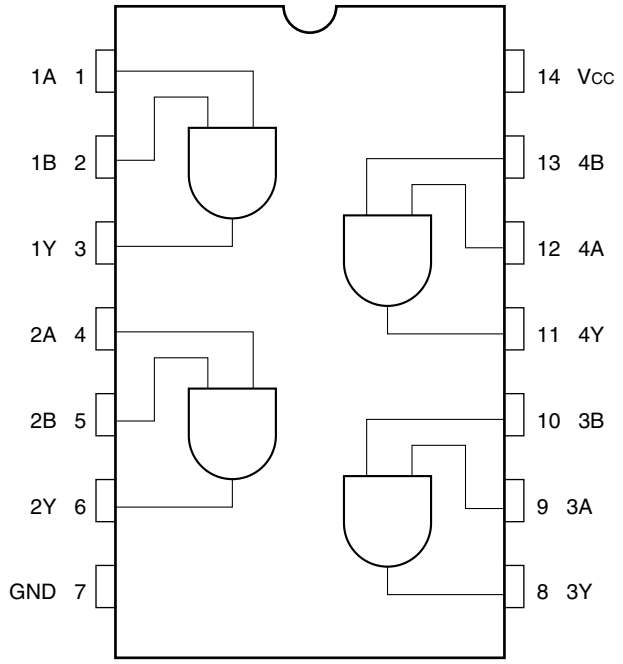
● Block Diagram



■ TC74VHC08FTS1 (50 Y DRIVE ASSY : IC2003, IC2005)

• Quad 2-input AND Gate

● Pin Arrangement (Top view) / Block Diagram



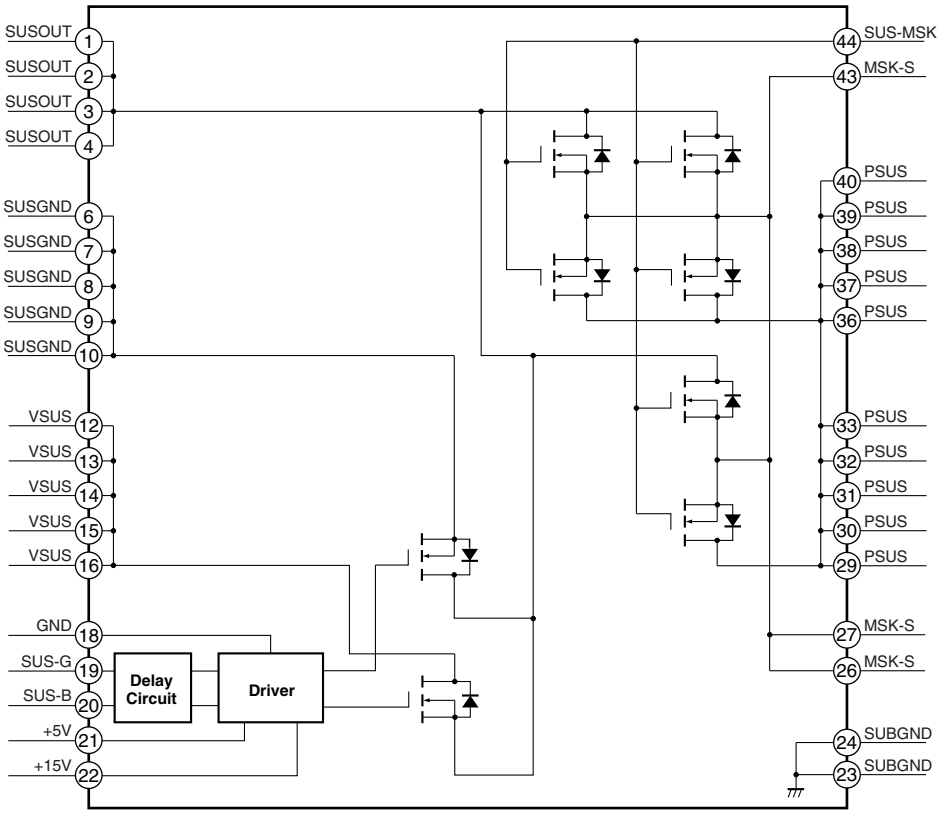
● Truth Table

A	B	Y
L	L	L
L	H	L
H	L	L
H	H	H

■ AXF1141 (50 Y DRIVE ASSY : IC2252, IC2253)

• Y Mask Module

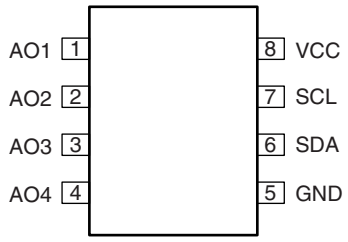
● Block Diagram



■ M62334FP (HD DIGITAL ASSY : IC3157)

• 8-bit 4ch I2C Bus D-A Converter with Buffer Amplifier

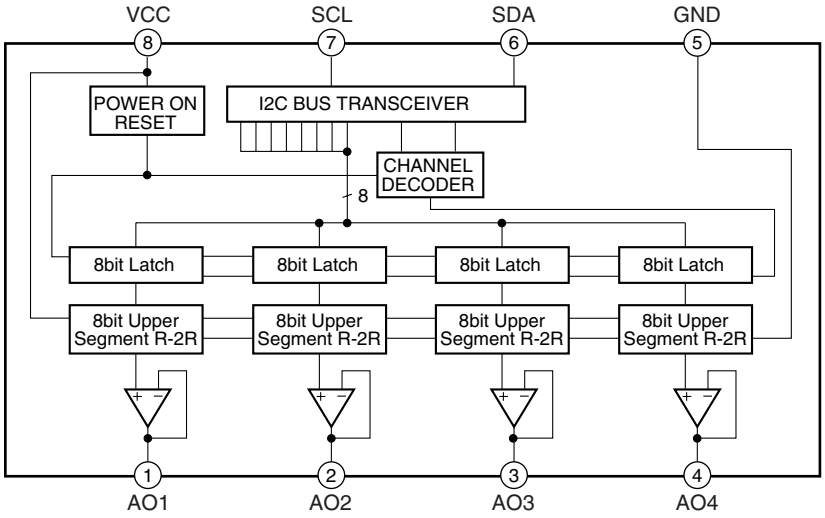
● Pin Arrangement (Top view)



● Pin Function

No.	Pin Name	Pin Function
1	AO1	8-bit resolution D-A converter output
2	AO2	
3	AO3	
4	AO4	
5	GND	Ground
6	SDA	Serial data input
7	SCL	Serial clock input
8	VCC	Power supply

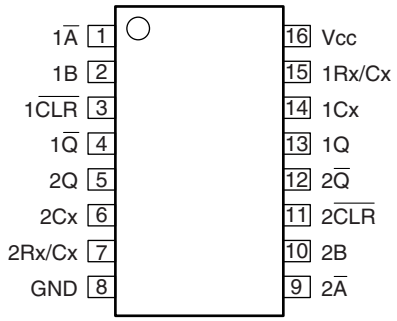
● Block Diagram



■ TC74VHC123AFTS1 (HD DIGITAL ASSY : IC3160)

• Dual Monostable Multivibrator/AFN/AFT Retriggerble

● Pin Arrangement (Top view)



● Truth Table

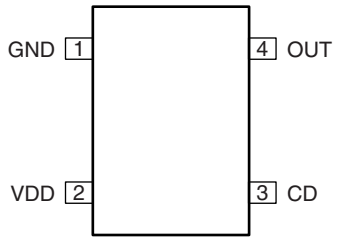
Inputs			Outputs		Note
$\overline{A}$	B	$\overline{CLR}$	Q	$\overline{Q}$	
↓	H	H	⎍	⎍	Output enable
X	L	H	L	H	Inhibit
H	X	H	L	H	Inhibit
L	↑	H	⎍	⎍	Output enable
L	H	↑	⎍	⎍	Output enable
X	X	L	L	H	Reset

X: Don't care

■ PST3610UR (HD DIGITAL ASSY : IC3304)

• Reset IC

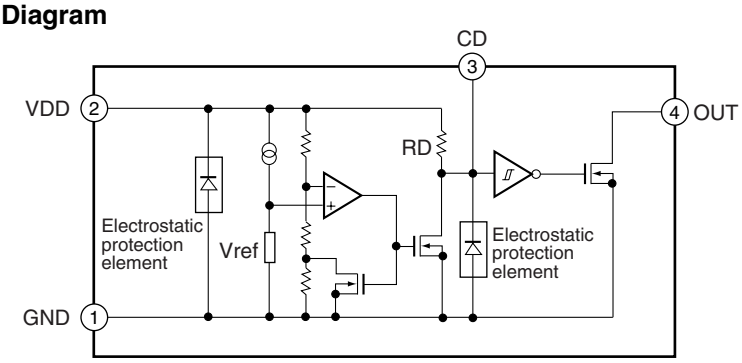
● Pin Arrangement (Top view)



● Pin Function

No.	Pin Name	Pin Function
1	GND	Ground
2	VDD	Power supply / Voltage detection
3	CD	Capacitor connect pin for delay
4	OUT	Reset signal output

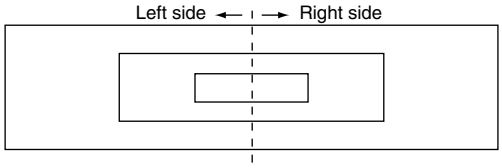
● Block Diagram



■ PEG122C (HD DIGITAL ASSY : IC3401)

• LSI for PDP video processing (SEQUENCE PROCESSOR)

● Pin Arrangement (Top view)



● Left side (Top view)

	1	2	3	4	5	6	7	8	9	10	11	12	13	
A	BAI5	GAI1	GAI4	GAI9	RAI4	RAI9	BBI0	BBI6	GBI1	GBI5	RBI1	RBI7	TRNSEND1	A
B	BAI4	GAI0	GND33	GAI8	RAI3	RAI8	HDI	BBI5	GBI0	GDN33	RBI0	RBI6	TRNSEND0	B
C	BAI3	BAI9	VDD33	GAI7	RAI2	RAI7	VDI	BBI4	BBI9	VDD33	GBI9	RBI5	VDD33	C
D	BAI2	BAI8	GAI3	GAI6	RAI1	RAI6	DEI	BBI3	BBI8	GBI4	GBI8	RBI4	RBI9	D
E	BAI1	BAI7	GAI2	GAI5	RAI0	RAI5	DCLKI	BBI2	BBI7	GBI3	GBI7	RBI3	RBI8	E
F	BAI0	BAI6	PEAK	APLDT	THEATER	GND12	VDD12	BBI1	VDD12	GBI2	GBI6	RBI2	VDD12	F
G	XSCAN20	XSCAN19	XSCAN18	XSCAN17	XSCAN16	VDD12								G
H	XSCAN15	XSCAN14	XSCAN13	XSCAN12	XSCAN11	VDDTC12								H
J	XSCAN10	GND33	VDD33	XSCAN9	GNDTC12	VDD12								J
K	XSCAN8	XSCAN7	XSCAN6	XSCAN5	XSCAN4	VDDTC12								K
L	XSCAN3	XSCAN2	XSCAN1	XSCAN0	GND12	VDD12					GND12	GND12	GND12	L
M	XSUS10	XSUS9	XSUS8	XSUS7	GNDTC12	VDD12					GND12	GND12	GND12	M
N	XSUS6	GND33	VDD33	XSUS5	GND12	VDD12					GND12	GND12	GND12	N
P	XSUS4	XSUS3	XSUS2	XSUS1	XSUS0	VDDTC12					GND12	GND12	GND12	P
R	ADRS0	ADRS1	ADRS2	ADRS3	GNDTC12	VDD12					GND12	GND12	GND12	R
T	TEST_I0	GND33	VDD33	TEST_I1	TEST_I2	TEST_R					GND12	GND12	GND12	T
U	TXOUTM063	TXOUTP063	GNDLA	VDDLA	GNDLA	VDDL12								U
V	TXCLKOUTM06	TXCLKOUTP06	GNDLA	VDDLA	GNDLA	VDDLA								V
W	TXOUTM062	TXOUTP062	GNDLA	VDDLA	GNDLA	VDDLA								W
Y	TXOUTM061	TXOUTP061	GNDLA	VDDLA	GNDLA	VDDL12								Y
AA	TXOUTM060	TXOUTP060	GNDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDL12	VDDLA	VDDLA	VDDL12	VDDLA	VDDLA	AA
AB	TXOUTM073	TXOUTP073	GNDLA	VDDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	VDDBG	REFIN	AB
AC	TXCLKOUTM07	TXCLKOUTP07	GNDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	AC
AD	TXOUTM072	TXOUTP072	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	AD
AE	TXOUTM071	TXOUTP071	GNDLA	TXOUTP033	TXCLKOUTP03	TXOUTP032	TXOUTP031	TXOUTP030	TXOUTP023	TXCLKOUTP02	TXOUTP022	TXOUTP021	TXOUTP020	AE
AF	TXOUTM070	TXOUTP070	GNDLA	TXOUTM033	TXCLKOUTM03	TXOUTM032	TXOUTM031	TXOUTM030	TXOUTM023	TXCLKOUTM02	TXOUTM022	TXOUTM021	TXOUTM020	AF

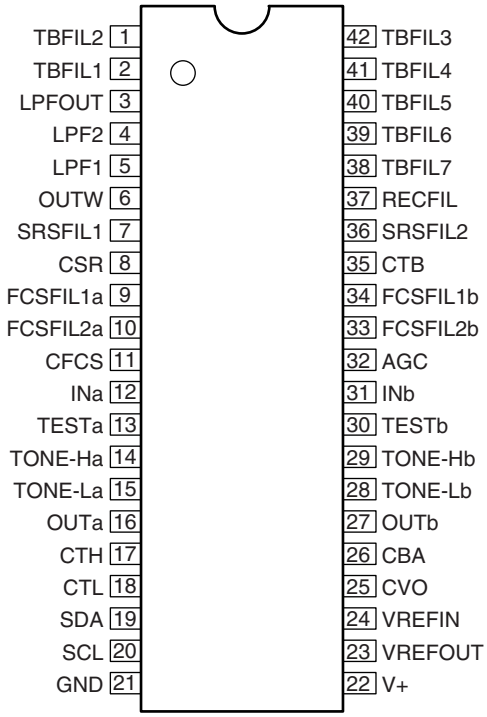
● Right side (Top view)

	14	15	16	17	18	19	20	21	22	23	24	25	26	
A	CLKD	VSSPA	EXDI011	EXDI09	EXA4	EXA10	EXA2	EXA16	EXA20	CSCS_N1	CSCS_N2	CSIOSCK1	CSIORXD	A
B	CSRD_N	VCCPA	EXDI04	GND33	EXA3	EXA9	EXA1	EXA15	EXA19	CSCS_N0	GND33	TCRAM_MONITOR0	TCRAM_MONITOR1	B
C	CLKS	CLK_MONI	EXDI012	VDD33	EXDI00	EXA8	CSWR_N	EXA14	EXA18	UARTRXD	VDD33	TCRAM_MONITOR2	CSIORQ	C
D	VSSPB	EXDI014	EXDI05	EXDI02	EXDI08	EXA7	EXA0	EXA13	EXA17	UARTTXD	CS10TXD	RESETX	SDIJTAG	D
E	VCCPB	EXDI07	EXDI013	EXDI010	EXDI01	EXA6	EXA11	EXA12	CSEXWAIT_N	SDITRST_N	SDITCK	SDIDBI_N	SDITMS	E
F	LPFMONI	EXDI015	EXDI06	EXDI03	VDD12	EXA5	VDD12	GND12	SDITDO	SDITDI	GPI000	GPI001	GPI002	F
G								VDD12	GPI003	GPI004	GPI005	GPI006	GPI007	G
H								VDDTC12	YSCAN20	YSCAN19	YSCAN18	YSCAN17	YSCAN16	H
J								VDD12	GNDTC12	YSCAN15	VDD33	GND33	YSCAN14	J
K								VDDTC12	YSCAN13	YSCAN12	YSCAN11	YSCAN10	YSCAN9	K
L	GND12	GND12	GND12					VDD12	GND12	YSCAN8	YSCAN7	YSCAN6	YSCAN5	L
M	GND12	GND12	GND12					VDD12	GNDTC12	YSCAN4	YSCAN3	YSCAN2	YSCAN1	M
N	GND12	GND12	GND12					VDD12	GND12	YSCAN0	VDD33	GND33	VSUS10	N
P	GND12	GND12	GND12					VDDTC12	YSUS9	YSUS8	YSUS7	YSUS6	VSUS5	P
R	GND12	GND12	GND12					VDD12	GNDTC12	YSUS4	YSUS3	YSUS2	VSUS1	R
T	GND12	GND12	GND12					YSUS0	RSV1	RSV0	VDD33	GND33	AFE_PS_N	T
U								VDDL12	GNDLA	VDDLA	GNDLA	TXOUTP050	TXOUTM050	U
V								VDDLA	GNDLA	VDDLA	GNDLA	TXOUTP051	TXOUTM051	V
W								VDDLA	GNDLA	VDDLA	GNDLA	TXOUTP052	TXOUTM052	W
Y								VDDL12	GNDLA	VDDLA	GNDLA	TXCLKOUTP05	TXCLKOUTM05	Y
AA	VDDLA	VDDLA	VDDL12	VDDLA	VDDLA	VDDL12	VDDLA	VDDLA	VDDLA	VDDLA	GNDLA	TXOUTP053	TXOUTM053	AA
AB	VREF12	GNDBG	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	VDDLA	GNDLA	TXOUTP040	TXOUTM040	AB
AC	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	GNDLA	TXOUTP041	TXOUTM041	AC
AD	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	TXOUTP042	TXOUTM042	AD
AE	TXOUTP013	TXCLKOUTP01	TXOUTP012	TXOUTP011	TXOUTP010	TXOUTP003	TXCLKOUTP00	TXOUTP002	TXOUTP001	TXOUTP000	GNDLA	TXCLKOUTP04	TXCLKOUTM04	AE
AF	TXOUTM013	TXCLKOUTM01	TXOUTM012	TXOUTM011	TXOUTM010	TXOUTM003	TXCLKOUTM00	TXOUTM002	TXOUTM001	TXOUTM000	GNDLA	TXOUTP043	TXOUTM043	AF

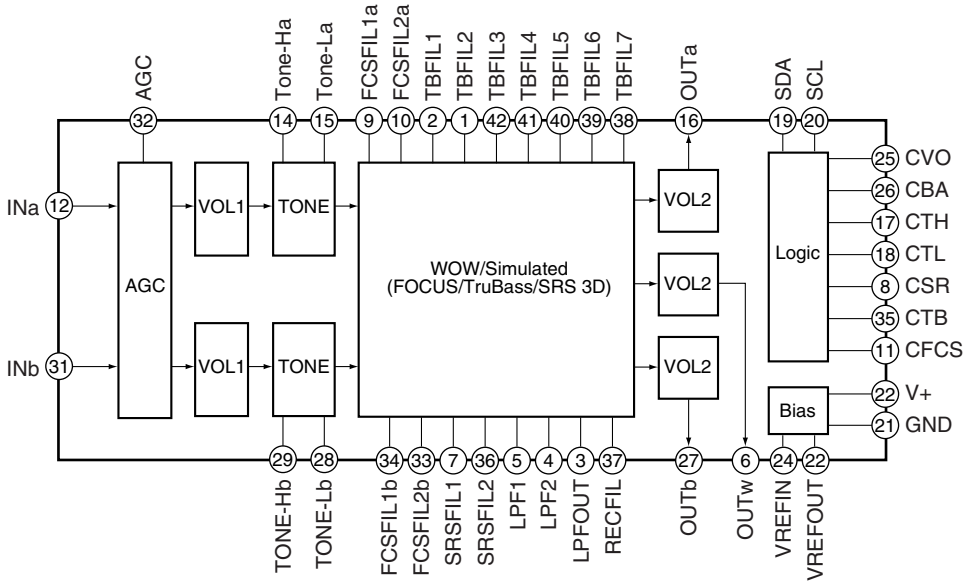
■ NJW1183L (HD AUDIO ASSY : IC3753)

• FOCUS & SRS IC

● Pin Arrangement (Top view)

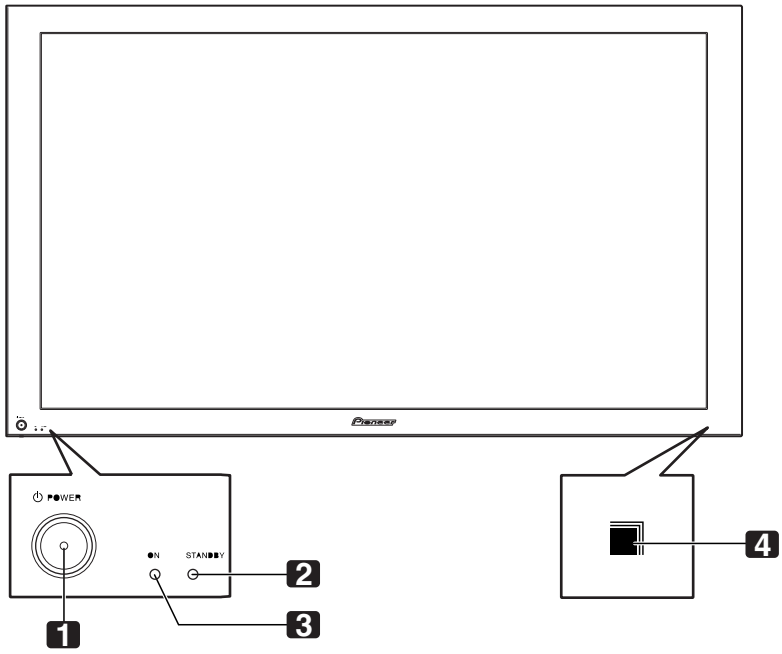


● Block Diagram



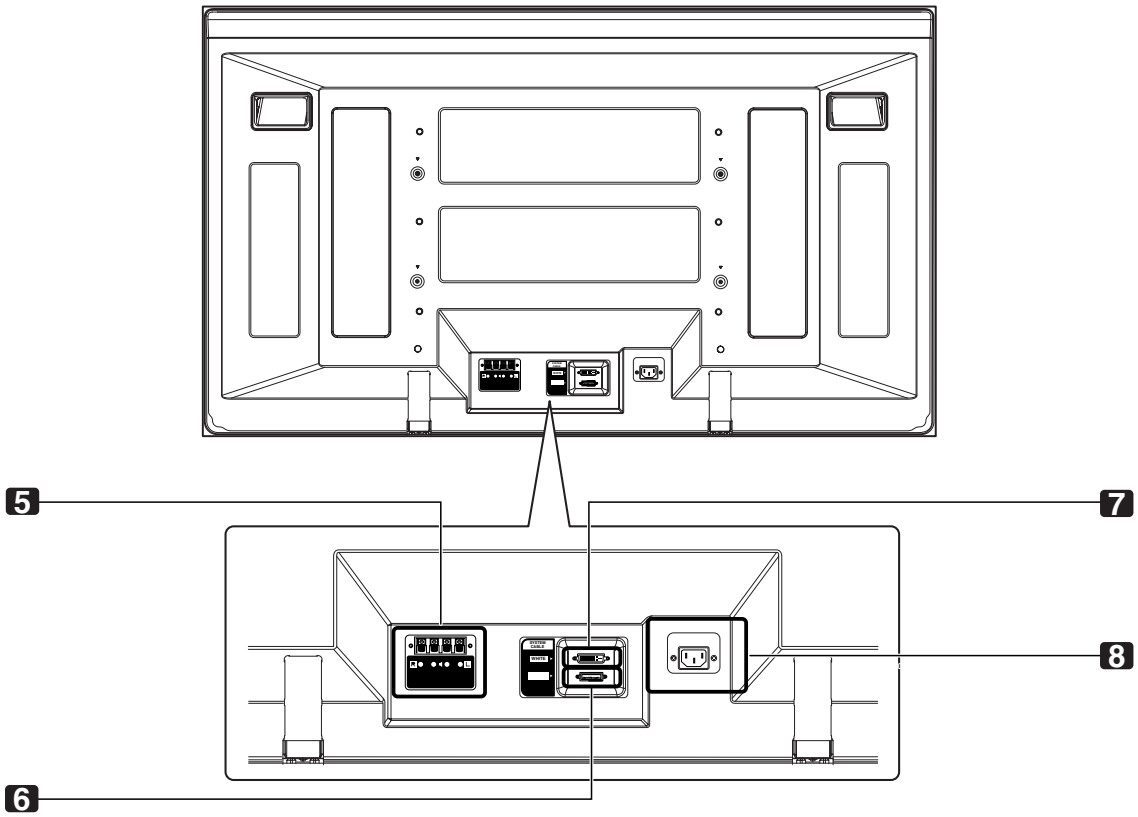
8. PANEL FACILITIES

Front view



1 **POWER** button
2 STANDBY indicator
3 POWER ON indicator
4 Remote control sensor

Rear view



5 SPEAKER (right/left) terminals
6 SYSTEM CABLE terminal (BLACK)
7 SYSTEM CABLE terminal (WHITE)
8 AC IN terminal

A

B

C

D

E

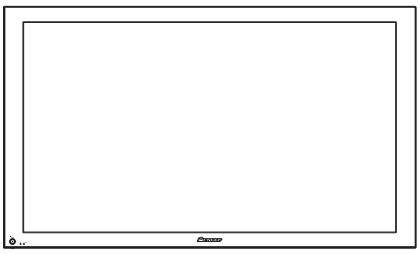
F

■ Jigs list

Jig No.	Jig Name	Remarks
GGF1475	Special Communication Device	See to "6.2 RS-232C COMMAND".

Pioneer sound.vision.soul

Service Manual



PDP-506PE

ORDER NO.
ARP3267

PLASMA DISPLAY

PDP-506PE
PDP-506PU

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
PDP-506PE	WYVI	AC220 - 240V	
PDP-506PU	KUCXC	AC120V	

Note:
Media Receivers up to Generation 5 (G5) cannot be connected with this unit.
Be sure to use a Media Receiver of Generation 6 (G6) (ex.: PDP-R06∗∗, etc.).



For details, refer to "Important Check Points for good servicing".

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ⓒ**PIONEER CORPORATION 2005**

T-IZY SEPT. 2005 printed in Japan

SAFETY INFORMATION

This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 - Proposition 65

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

SAFETY PRECAUTIONS

NOTICE : Comply with all cautions and safety related notes located on or inside the cabinet and on the chassis.

The following precautions should be observed :

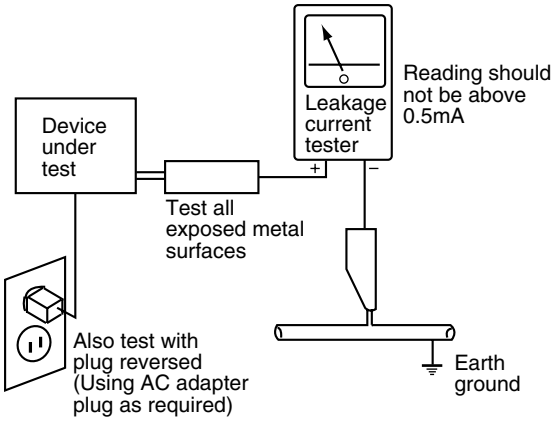
1. When service is required, even though the PDP UNIT an isolation transformer should be inserted between the power line and the set in safety before any service is performed.
2. When replacing a chassis in the set, all the protective devices must be put back in place, such as barriers, nonmetallic knobs, adjustment and compartment covershields, isolation resistor-capacitor, etc.
3. When service is required, observe the original lead dress. Extra precaution should be taken to assure correct lead dress in the high voltage circuitry area.
4. Always use the manufacture's replacement components. Especially critical components as indicated on the circuit diagram should not be replaced by other manufacture's. Furthermore where a short circuit has occurred, replace those components that indicate evidence of overheating.
5. Before returning a serviced set to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the set by the manufacture has become defective, or inadvertently defeated during servicing. Therefore, the following checks should be performed for the continued protection of the customer and servicetechnician.
6. Perform the following precautions against unwanted radiation and rise in internal temperature.
   - Always return the internal wiring to the original styling.
   - Attach parts (Gascket, Ferrite Core, Ground, Rear Cover, Shield Case etc.) surely after disassembly.
7. Perform the following precautions for the PDP panel.
   - When the front case is removed, make sure nothing hits the panel face, panel corner, and panel edge (so that the glass does not break).
   - Make sure that the panel vent does not break. (Check that the cover is attached.)
   - Handle the FPC connected to the panel carefully. Twisting or pulling the FPC when connecting it to the connector will cause it to peel off from the panel.
8. Pay attention to the following.
   - Pay extreme caution when the front case and rear panel are removed because this may cause a high risk of disturbance to TVs and radios in the surrounding.

Leakage Current Cold Check

With the AC plug removed from an AC power source, place a jumper across the two plug prongs. Turn the AC power switch on. Using an insulation tester (DC 500V), connect one lead to the jumpered AC plug and touch the other lead to each exposed metal part (input/output terminals, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis. Exposed metal parts having a return path to the chassis should have a minimum resistor reading of 0.3MΩ and a maximum resistor reading of 5MΩ. Any resistor value below or above this range indicates an abnormality which requires corrective action. Exposed metal parts not having a return path to the chassis will indicate an open circuit.

Leakage Current Hot Check

Plug the AC line cord directly into an AC power source (do not use an isolation transformer for this check).
Turn the AC power switch on.
Using a "Leakage Current Tester (Simpson Model 229 equivalent)", measure for current from all exposed metal parts of the cabinet (input/output terminals, screwheads, metal overlays, control shaft, etc.), particularly any exposed metal part having a return path to the chassis, to a known earth ground (water pipe, conduit, etc.). Any current measured must not exceed 0.5mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE SET TO THE CUSTOMER.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in PIONEER set have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.
Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire or other hazards.
Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

■Charged Section

The places where the commercial AC power is used without passing through the power supply transformer.
If the places are touched, there is a risk of electric shock. In addition, the measuring equipment can be damaged if it is connected to the GND of the charged section and the GND of the non-charged section while connecting the set directly to the commercial AC power supply. Therefore, be sure to connect the set via an insulated transformer and supply the current.

1. Power Cord
2. AC Inlet
3. Power Switch (S1)
4. Fuse (In the POWER SUPPLY Unit)
5. STB Transformer and Converter Transformer (In the POWER SUPPLY Unit)
6. Other primary side of the POWER SUPPLY Unit

■High Voltage Generating Point

The places where voltage is 100V or more except for the charged places described above. If the places are touched, there is a risk of electric shock.

If the procedures described in "7.1.5 POWER ON/OFF FUNCTION FOR THE LARGE-SIGNAL SYSTEM" are performed before the power is turned off, the voltage will be discharged in about 30 seconds.

1. POWER SUPPLY Unit.....(205V)
2. 50 X DRIVE Assy ..... (–180V to 205V)
3. 50 Y DRIVE Assy ..... (500V)
4. 50 SCAN A Assy ..... (500V)
5. 50 SCAN B Assy ..... (500V)
6. SUS CLAMP 1 Assy .....(–180V to 205V)
7. SUS CLAMP 2 Assy .....(–180V to 205V)

: Part is Charged Section.
: Part is the High Voltage Generating Points other than the Charged Section.

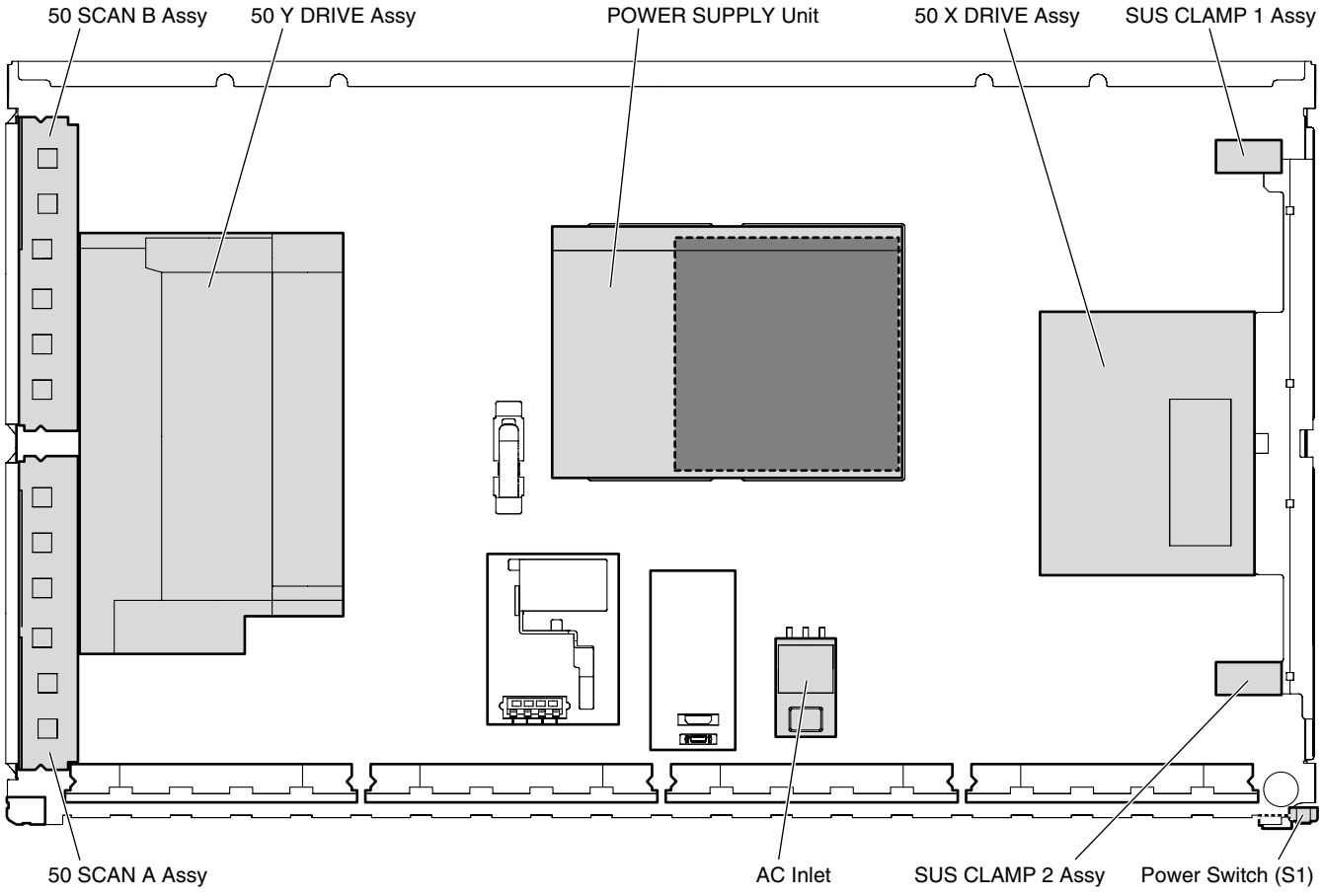


Fig.1 Charged Section and High Voltage Generating Point (Rear View)

[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol.
Please be sure to confirm and follow these procedures.

1. Product safety



Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification(addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris.
Soldering should be finished with the proper quantity. (Refer to the example)

④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs.
In addition, be sure that there are no pinched wires, etc.

⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages.
If you find a damaged power cord, please exchange it with a suitable one.

⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries.
Please pay attention to your surroundings and repair safely.

2. Adjustments



To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification.
Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts



Use grease and adhesives that are equal to the specified substance.
Make sure the proper amount is applied.

4. Cleaning



For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

5. Shipping mode and Shipping screws



To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

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1. SPECIFICATIONS

Item	50" Plasma Display, Model: PDP-506PE	50" Plasma Display, Model: PDP-506PU
Number of Pixels	1280 × 768 pixels	1280 × 768 pixels
Audio Amplifier	13 W + 13 W (1 kHz, 10 %, 8Ω)	13 W + 13 W (1 kHz, 10 %, 8Ω)
Surround System	SRS/FOCUS/TruBass	SRS/FOCUS/TruBass
Power Requirement	220 - 240 V AC, 50/60 Hz, 344 W (0.4 W Standby)	120 V AC, 60 Hz, 355 W (0.2 W Standby)
Dimensions	1224 (W) × 717 (H) × 92 (D) mm	1224 (W) × 717 (H) × 92 (D) mm (48 3/16 (W) × 28 1/4 (H) × 3 5/8 (D) inches)
Weight	31.8 kg (70.1 lbs.)	31.8 kg (70.1 lbs.)

• Design and specifications are subject to change without notice.

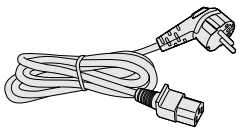
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Accessories

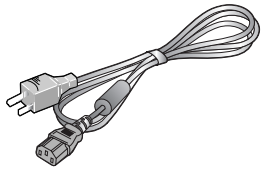
Power cord (2 m)

For PDP-506PE



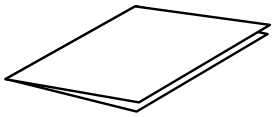
(ADG1214)

For PDP-506PU

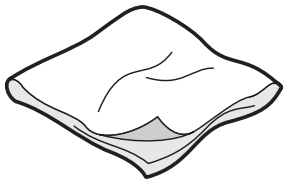


(ADG1215)

Only the power cord that is appropriate in your country or region is supplied.

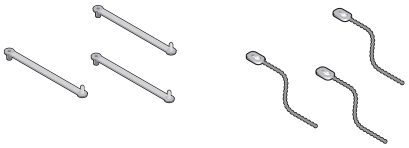


Warranty card



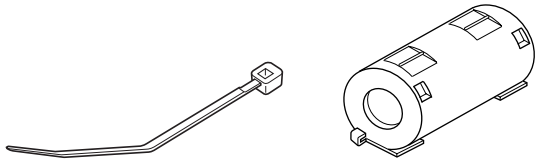
Cleaning cloth
(AED1285)

Binder Assy (AEC1908)



Speed clamp x 3 Bead band x 3

Ferrite Core (ATX1039)(PDP-506PE only)

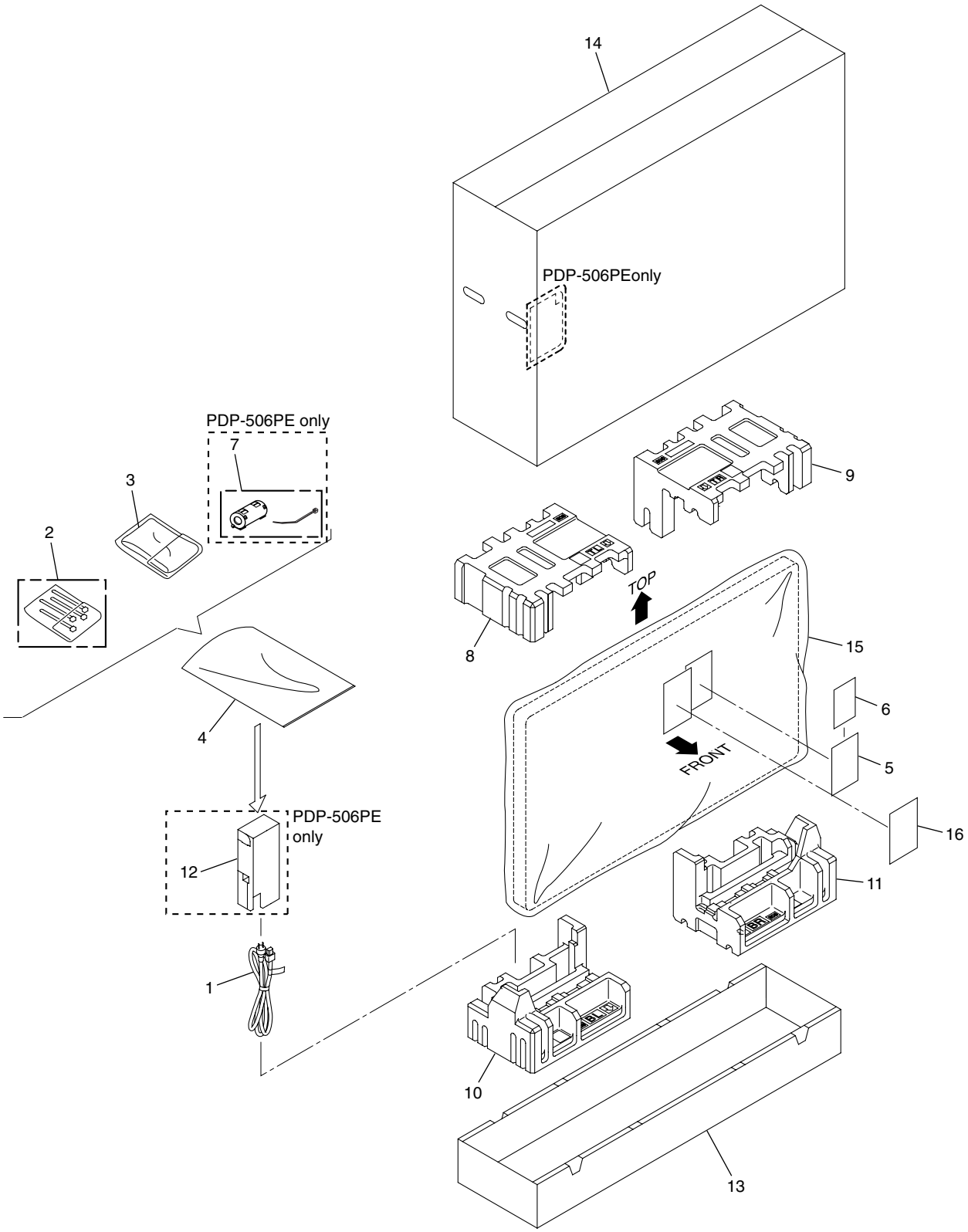


Cable tie Ferrite core

2. EXPLODED VIEWS AND PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent to ▼ mark on product are used for disassembly.*
- *For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)*

2.1 PACKING SECTION



(1) PACKING SECTION PARTS LIST

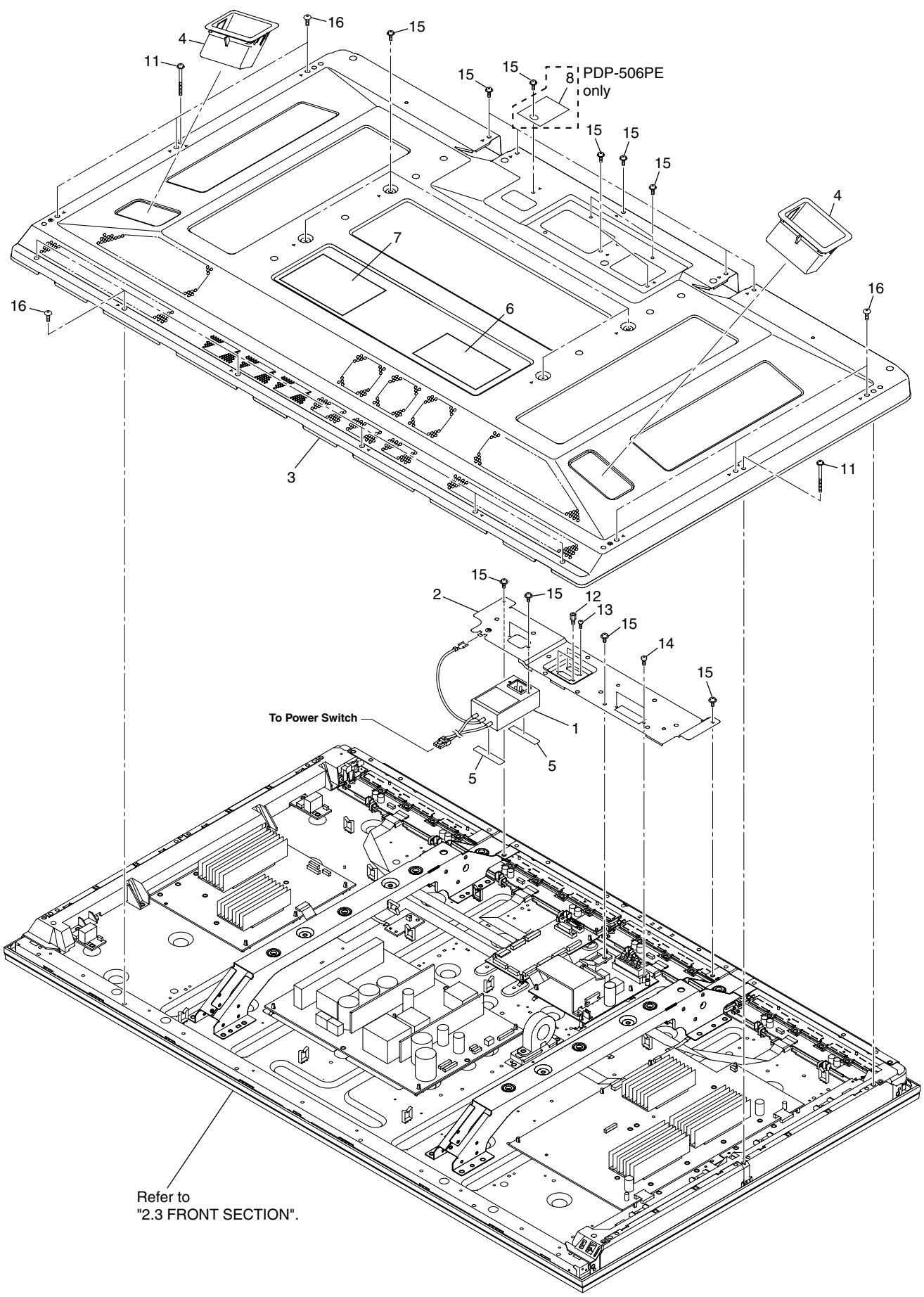
Mark	No.	Description	Part No.
⚠	1	Power Cord	See Contrast table (2)
	2	Binder Assy	AEC1908
	3	Cleaning Cloth	AED1285
	4	Polyethylene Bag S	See Contrast table (2)
NSP	5	Catalogue Bag	See Contrast table (2)
NSP	6	Warranty card	See Contrast table (2)
⚠	7	Ferrite Core	See Contrast table (2)
	8	Pad (50T-L)	See Contrast table (2)
	9	Pad (50T-R)	See Contrast table (2)
	10	Pad (50B-L)	See Contrast table (2)
	11	Pad (50B-R)	See Contrast table (2)
	12	Power Cord Case	See Contrast table (2)
	13	Under Carton	See Contrast table (2)
	14	Upper Carton	See Contrast table (2)
	15	Mirror Mat	See Contrast table (2)
	16	Caution Card	See Contrast table (2)

(2) CONTRAST TABLE

PDP-506PE/WYVI and PDP-506PU/KUCXC are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-506PE/WYVI	PDP-506PU/KUCXC
⚠	1	Power Cord	ADG1214	ADG1215
	4	Polyethylene Bag S	AHG1338	AHG1348
NSP	5	Catalogue Bag	AHG1340	AHG1347
NSP	6	Warranty Card	ARY1114	ARY1145
⚠	7	Ferrite Core	ATX1039	Not used
	8	Pad (50T-L)	AHA2427	AHA2459
	9	Pad (50T-R)	AHA2428	AHA2460
	10	Pad (50B-L)	AHA2429	AHA2461
	11	Pad (50B-R)	AHA2430	AHA2462
	12	Power Cord Case	AHC1073	Not used
	13	Under Carton (50)	AHD3344	Not used
	13	Under Carton (506PU)	Not used	AHD3379
	14	Upper Carton (506PE)	AHD3345	Not used
	14	Upper Carton (506PU)	Not used	AHD3383
	15	Mirror Mat	AHG1284	AHG1352
	16	Caution Card	ARM1232	ARM1239

2.2 REAR SECTION



(1) REAR SECTION PARTS LIST

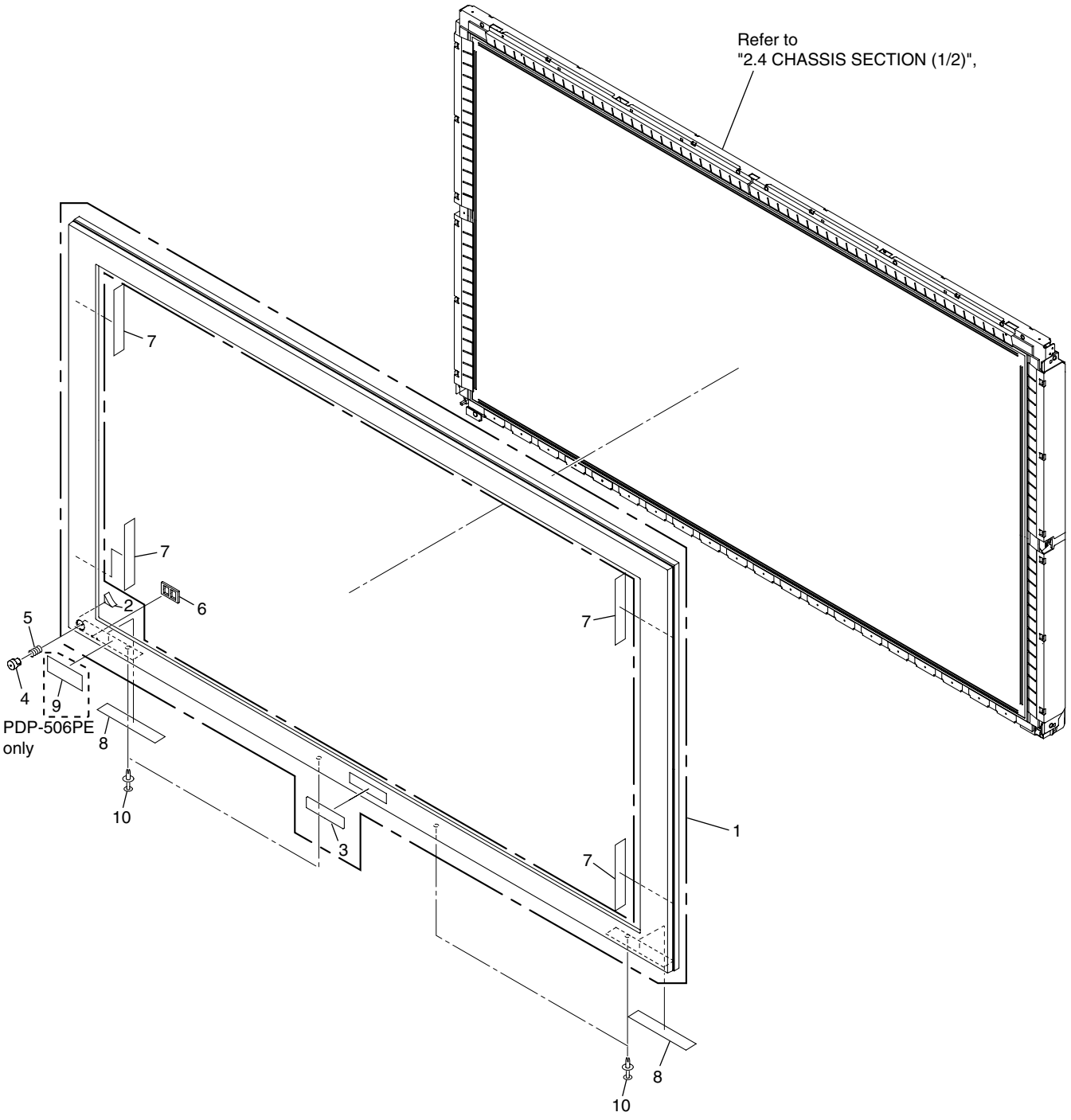
Mark	No.	Description	Part No.
⚠	1	AC Inlet	AKP1274
	2	Control Plate	AND1185
	3	Rear Case (506)	ANE1639
	4	Inner Grip Assy	AMR3434
	5	AC Cushion	AEC2035
NSP	6	Model Label	See Contrast table (2)
	7	Caution Label	See Contrast table (2)
	8	AC Label PE	See Contrast table (2)
	9	•••••	
	10	•••••	
	11	Screw (3 x 40P)	ABA1332
	12	Hexagon Head Screw	BBA1051
	13	Screw	PMZ26P060FTB
	14	Screw	BPZ30P080FTB
	15	Screw	AMZ30P060FTB
	16	Screw	TBZ40P080FTB

(2) CONTRAST TABLE

PDP-506PE/WYVI and PDP-506PU/KUCXC are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-506PE/WYVI	PDP-506PU/KUCXC
NSP	6	Model Label (506PE)	AAL2661	Not used
NSP	6	Model Label (506PU)	Not used	AAL2679
	7	Caution Label	AAX3117	AAX3075
	8	AC Label PE	AAX3194	Not used

2.3 FRONT SECTION



(1) FRONT SECTION PARTS LIST

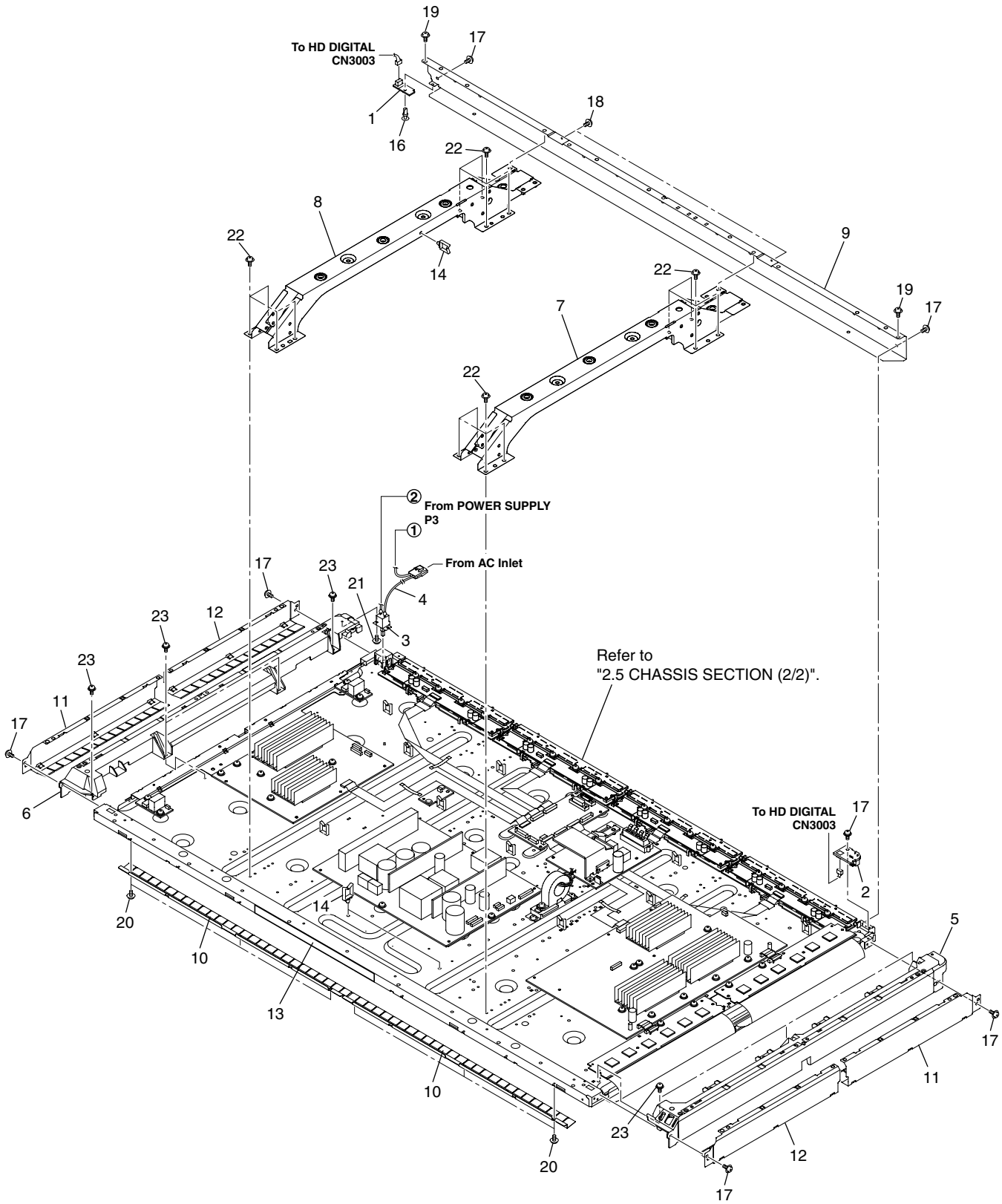
Mark	No.	Description	Part No.
	1	Front Case Assy (506PE)	AMB2861
	2	Corner Cushion	AEB1416
	3	Pioneer Name Plate	AAM1098
	4	Power Button	AAD4133
	5	Coil Spring	ABH1120
	6	Blind Cushion	AEB1415
	7	Insulation Sheet A	AED1283
	8	Insulation Sheet B	AED1284
	9	Power Display Label (506)	See Contrast table (2)
	10	Screw Rivet	AEC1877

(2) CONTRAST TABLE

PDP-506PE/WYVI and PDP-506PU/KUCXC are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-506PE/WYVI	PDP-506PU/KUCXC
	9	Power Display Label (506)	AAX3217	Not used

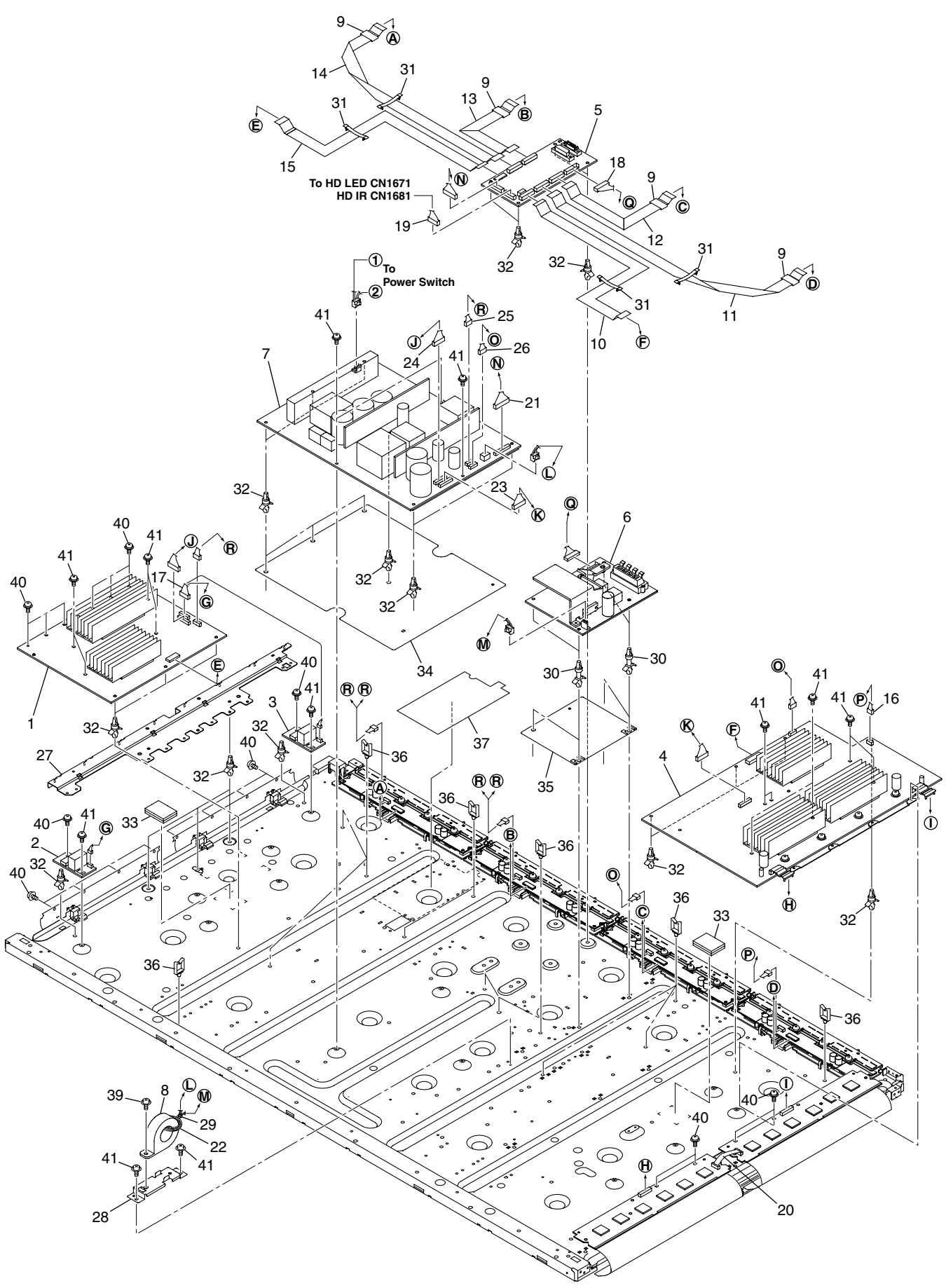
2.4 CHASSIS SECTION (1/2)



CHASSIS SECTION (1/2) PARTS LIST

Mark	No.	Description	Part No.
	1	HD LED Assy	AWW1029
	2	HD IR Assy	AWW1030
⚠	3	Power Switch (S1)	ASG1092
	4	Housing Wire (50)(J103)	ADX3112
	5	Front Chassis VL (50)	AMA1014
	6	Front Chassis VR (50)	AMA1015
	7	Sub Frame L Assy (506)	ANA1860
	8	Sub Frame R Assy (506)	ANA1861
	9	Front Chassis H Assy (50)	ANA1883
	10	Panel Holder H (50)	ANG2769
	11	Panel Holder V1 (50)	ANG2770
	12	Panel Holder V2 (50)	ANG2771
	13	Cushion	AEB1424
	14	Wire Saddle	AEC1745
	15	•••••	
	16	Nyron Rivet	AEC1671
	17	Screw	ABZ30P080FTC
	18	Screw	AMZ30P060FTB
	19	Screw	APZ30P080FTB
	20	Screw	BBZ30P060FTC
	21	Screw	BPZ30P080FTB
	22	Screw	TBZ40P080FTB
	23	Screw	VBB30P080FNI

2.5 CHASSIS SECTION (2/2)



(1) CHASSIS SECTION (2/2) PARTS LIST

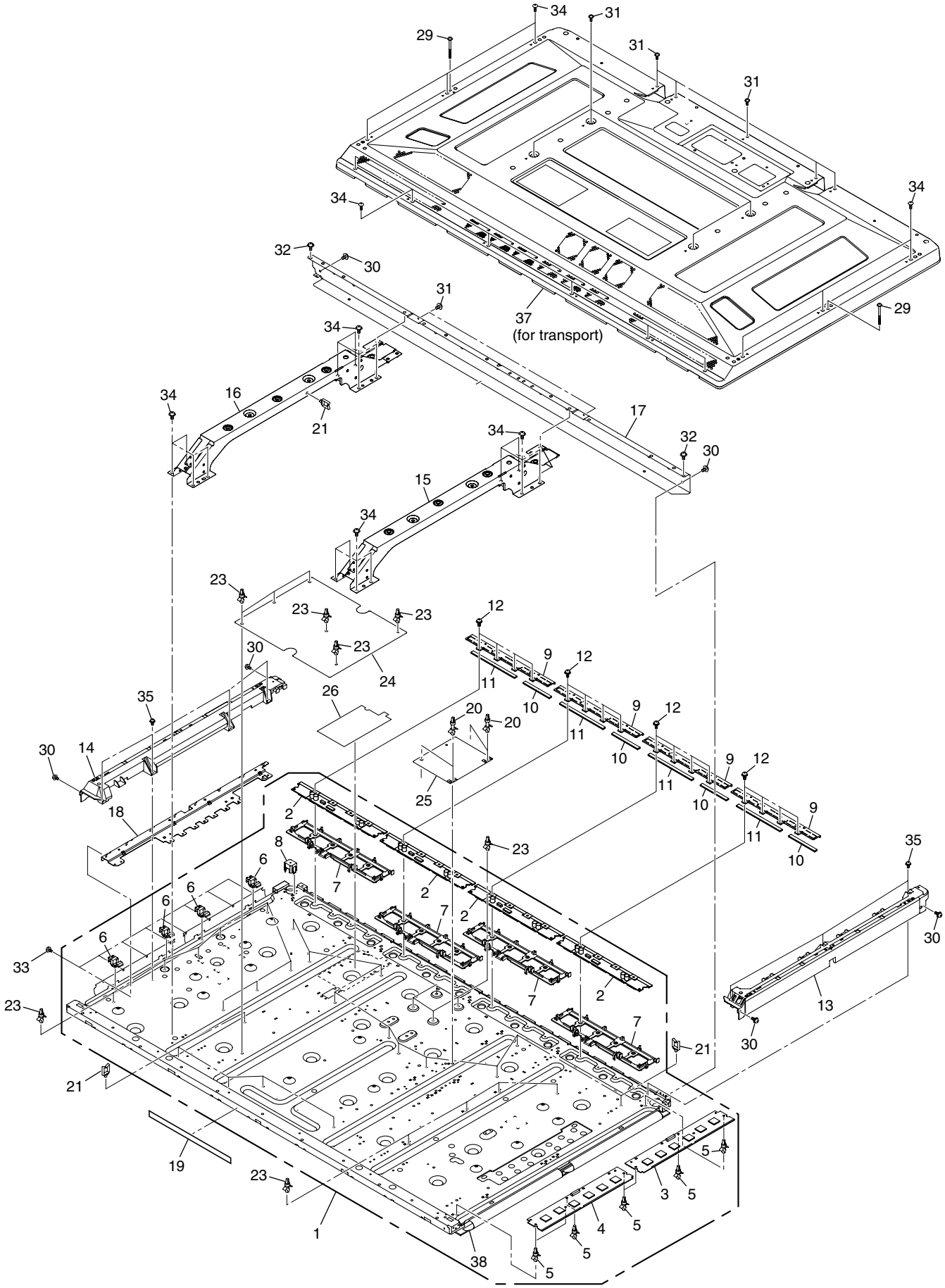
Mark	No.	Description	Part No.
	1	50 X DRIVE Assy	See Contrast table (2)
	2	SUS CLAMP 1 Assy	AWW1022
	3	SUS CLAMP 2 Assy	AWW1023
	4	50 Y DRIVE Assy	See Contrast table (2)
	5	HD DIGITAL Assy	AWW1028
	6	HD AUDIO Assy	AWV2203
⚠	7	POWER SUPPLY Unit	AXY1112
	8	Ring Core with Case	ATX1042
	9	Ferrite Core	ATX1048
	10	Flexible Cable (J201)	ADD1293
	11	Flexible Cable (J202)	ADD1294
	12	Flexible Cable (J203)	ADD1295
	13	Flexible Cable (J204)	ADD1296
	14	Flexible Cable (J205)	ADD1297
	15	Flexible Cable (J206)	ADD1298
	16	4P Housing Wire (J108)	ADX3117
	17	6P Housing Wire (J109)	See Contrast table (2)
	18	12P Housing Wire (J110)	See Contrast table (2)
	19	6P Housing Wire (J111)	ADX3120
	20	3P Housing Wire (J113)	See Contrast table (2)
	21	14P Housing Wire (J104)	ADX3158
	22	3P Housing Wire (J105)	ADX3159
	23	9P Housing Wire (J101)	ADX3186
	24	8P Housing Wire (J102)	ADX3187
	25	5P Housing Wire (J106)	ADX3188
	26	6P Housing Wire (J107)	ADX3189
	27	Conductive Plate XA	ANG2776
	28	FC Stay	ANG2815
	29	Binder	AEC-093
NSP	30	PCB Spacer	AEC1188
	31	Flat Clamp	AEC1879
	32	PCB Spacer	AEC1941
	33	Drive Silicone Sheet	AEH1095
	34	Power Supply Insulation Sheet	AMR3447
	35	Audio Insulation Sheet	AMR3469
	36	Wire Saddle	AEC1745
NSP	37	Address Sheet	AMR3491
	38	•••••	
	39	Screw	ABA1324
	40	Screw	PMB30P060FTC
	41	Screw	VBB30P080FNI

(2) CONTRAST TABLE

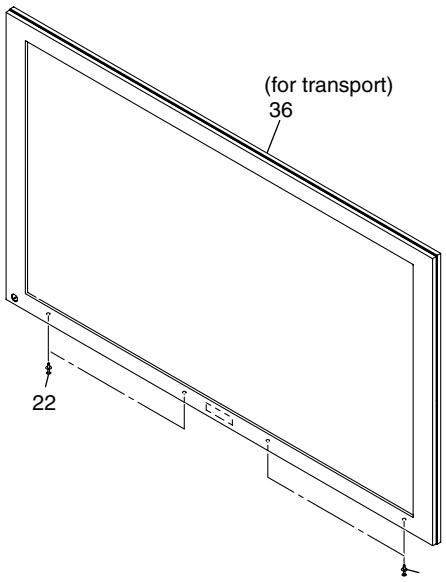
PDP-506PE/WYVI and PDP-506PU/KUCXC are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-506PE/WYVI	PDP-506PU/KUCXC
	1	50 X DRIVE Assy	AWW1075	AWW1020 or AWW1075
	4	50 Y DRIVE Assy	AWV2258	AWV2210 or AWV2258
	17	6P Housing Wire (J109)	ADX3118	ADX3132
	18	12P Housing Wire (J110)	ADX3119	ADX3133
	20	3P Housing Wire (J113)	ADX3122	ADX3136

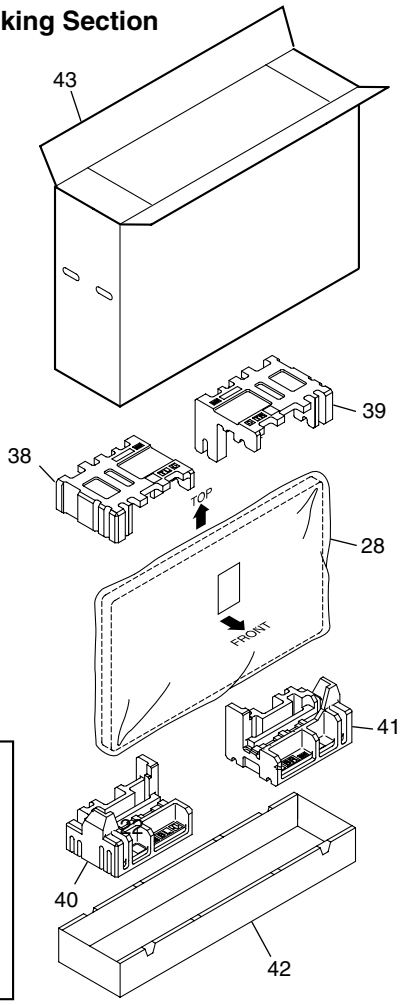
2.6 PDP SERVICE ASSY 506P (AWU1134)



• **Front Section**



• **Packing Section**



Note when replacing with the PDP Service Assy 506P

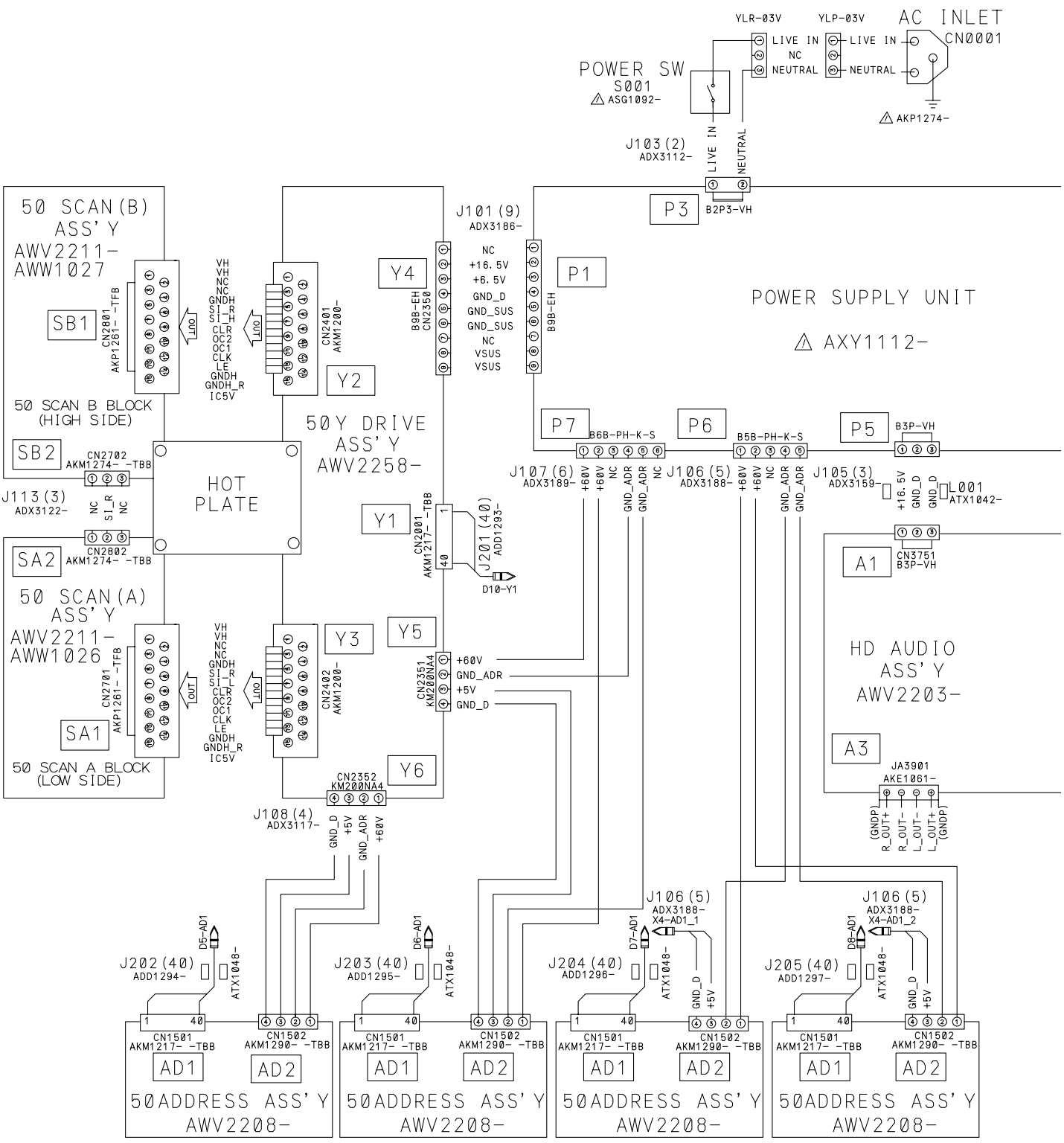
The Power Switch (S1), HD LED Assy, and HD IR Assy are not included in the PDP Service Assy 506P. Before replacement with the PDP Service Assy 506P, the following components of the Service Assy must be temporarily detached to attach the above-mentioned parts (parts from the original unit or newly purchased):
- Front Chassis H Assy (50) (ANA1883)
- Front Chassis VL (50) (AMA1014)
- Front Chassis VR (50) (AMA1015)

PDP SERVICE ASSY 506P (AWU1134) PARTS LIST

Mark	No.	Description	Part No.
NSP	1	Panel Chassis (506) Assy	AWU1143
NSP	2	50 ADDRESS Assy	AWV2208
NSP	3	50 SCAN A Assy	AWW1026
NSP	4	50 SCAN B Assy	AWW1027
	5	PCB Spacer	AEC1944
	6	Conductive Plate Holder	AMR3446
	7	ADDRESS Holder Assy (50)	AMR3454
	8	Tube Cover	AMR3445
	9	Address Heatsink (50)	ANH1635
	10	Address Silicone A	AEH1093
	11	Address Silicone B	AEH1094
	12	Screw	BBB30P120FNI
	13	Front Chassis VL (50)	AMA1014
	14	Front Chassis VR (50)	AMA1015
	15	Sub Frame L Assy (506)	ANA1860
	16	Sub Frame R Assy (506)	ANA1861
	17	Front Chassis H Assy (50)	ANA1883
	18	Conductive Plate XA	ANG2776
	19	Cushion	AEB1424
NSP	20	PCB Spacer	AEC1188
	21	Wire Saddle	AEC1745
	22	Screw Rivet	AEC1877
	23	PCB Spacer	AEC1941
	24	Power Supply Insulation Sheet	AMR3447
	25	Audio Insulation Sheet	AMR3469
NSP	26	Address Sheet	AMR3491
NSP	27	Chassis Assy (50)	ANA1830
	28	Protect Sheet	AHG1331
	29	Screw (3 x 40P)	ABA1332
	30	Screw	ABZ30P080FTC
	31	Screw	AMZ30P060FTB
	32	Screw	APZ30P080FTB
	33	Screw	PMB30P060FTC
	34	Screw	TBZ40P080FTB
	35	Screw	VBB30P080FNI
NSP	36	Front Case Assy (506 serivice) (for transport)	AMB2889
NSP	37	Rear Case (506) (for transport)	ANE1639
	38	Pad (50T-L)	AHA2427
	39	Pad (50T-R)	AHA2428
	40	Pad (50B-L)	AHA2429
	41	Pad (50B-R)	AHA2430
	42	Under Carton	AHA3344
	43	Upper Carton (506 S.V.C)	AHA3430

3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 OVERALL CONNECTION DIAGRAM



CONNECTOR PIN ASIGN

SYSTEM CABLE

CN1501 AD1	→CN3501 D5	CN1501 AD1	→CN3503 D7
CN1501 AD1	→CN3502 D6	CN1501 AD1	→CN3504 D8

1 →40. GND_D	21→20. CN
2 →39. DIV0	22→19. NC
3 →38. DIV1	23→18. GND_D
4 →37. GND_D	24→17. NC
5 →36. +3.3V	25→16. BP
6 →35. +3.3V	26→15. BN
7 →34. GND_D	27→14. NC
8 →33. GND_D	28→13. GND_D
9 →32. NC	29→12. NC
10→31. DP	30→11. AP
11→30. DN	31→10. AN
12→29. NC	32→9. NC
13→28. GND_D	33→8. GND_D
14→27. NC	34→7. GND_D
15→26. CLKP	35→6. +8V
16→25. CLKN	36→5. +8V
17→24. NC	37→4. GND_D
18→23. GND_D	38→3. GND_D
19→22. NC	(CN3504のPSIZE)
20→21. CP	39→2. ADR_PD
	40→1. NC

CN3506 D10 →CN2001 Y1

1→40. GND_D	21→20. GND_D
2→39. SCN5V_PD	22→19. YSUS-MSK
3→38. SI_L	23→18. YNRST
4→37. SI_H	24→17. YRsv2
5→36. GND_D	25→16. GND_D
6→35. CLR	26→15. YNOFS
7→34. CLK	27→14. YRsv3
8→33. GND_D	28→13. YSOFT-D
9→32. LE	29→12. GND_D
10→31. OC2	30→11. VOFS_ADJ
11→30. OC1 (-1)	31→10. VYPRST_ADJ
12→29. GND_D	32→ 9. GND_D
13→28. YSUS-B	33→ 8. GND_D
14→27. YSUS-U	34→ 7. NC
15→26. GND_D	35→ 6. GND_D
16→25. YSUS-D	36→ 5. YDD_PD
17→24. YSUS-G	37→ 4. YSUS_PD
18→23. GND_D	38→ 3. SCAN_PD
19→22. YPR-U	39→ 2. YDRV_PD
20→21. YRsv1	40→ 1. PSW

CN3505 D9 →CN1001 X1

1→18. PSW	
2→17. XSUS_PD	
3→16. XDD_PD	
4→15. XDRV_PD	
5→14. GND_D	
6→13. XRsv1	
7→12. XSUS_MSK	
8→11. GND_D	
9→10. XNR-D	
10→ 9. GND_D	
11→ 8. XSUS-Q	
12→ 7. GND_D	
13→ 6. XSUS-D	
14→ 5. GND_D	
15→ 4. XSUS-U	
16→ 3. GND_D	
17→ 2. XSUS-B	
18→ 1. GND_D	

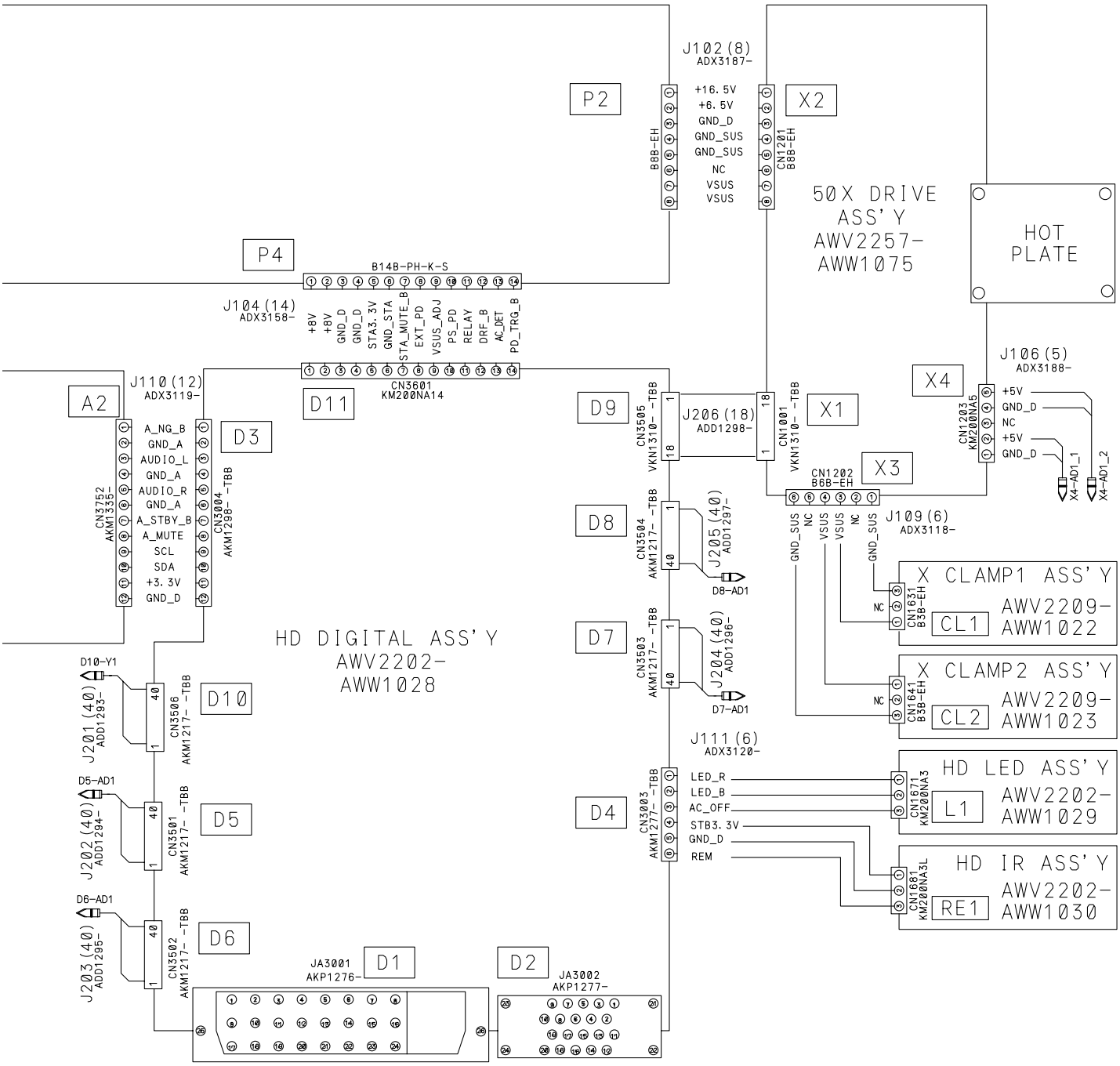
JA3001 AKP1276-

1. RX2-	
2. RX2+	
3. GND_D	
4. NC	
5. NC	
6. DDC_SCL	
7. DDC_SDA	
8. NC	
9. RX1-	
10. RX1+	
11. GND_D	
12. NC	
13. NC	
14. DDC_+5V	
15. GND_D	
16. HPD	
17. RX0-	
18. RX0+	
19. GND_D	
20. NC	
21. NC	
22. GND_D	
23. RXC+	
24. RXC-	

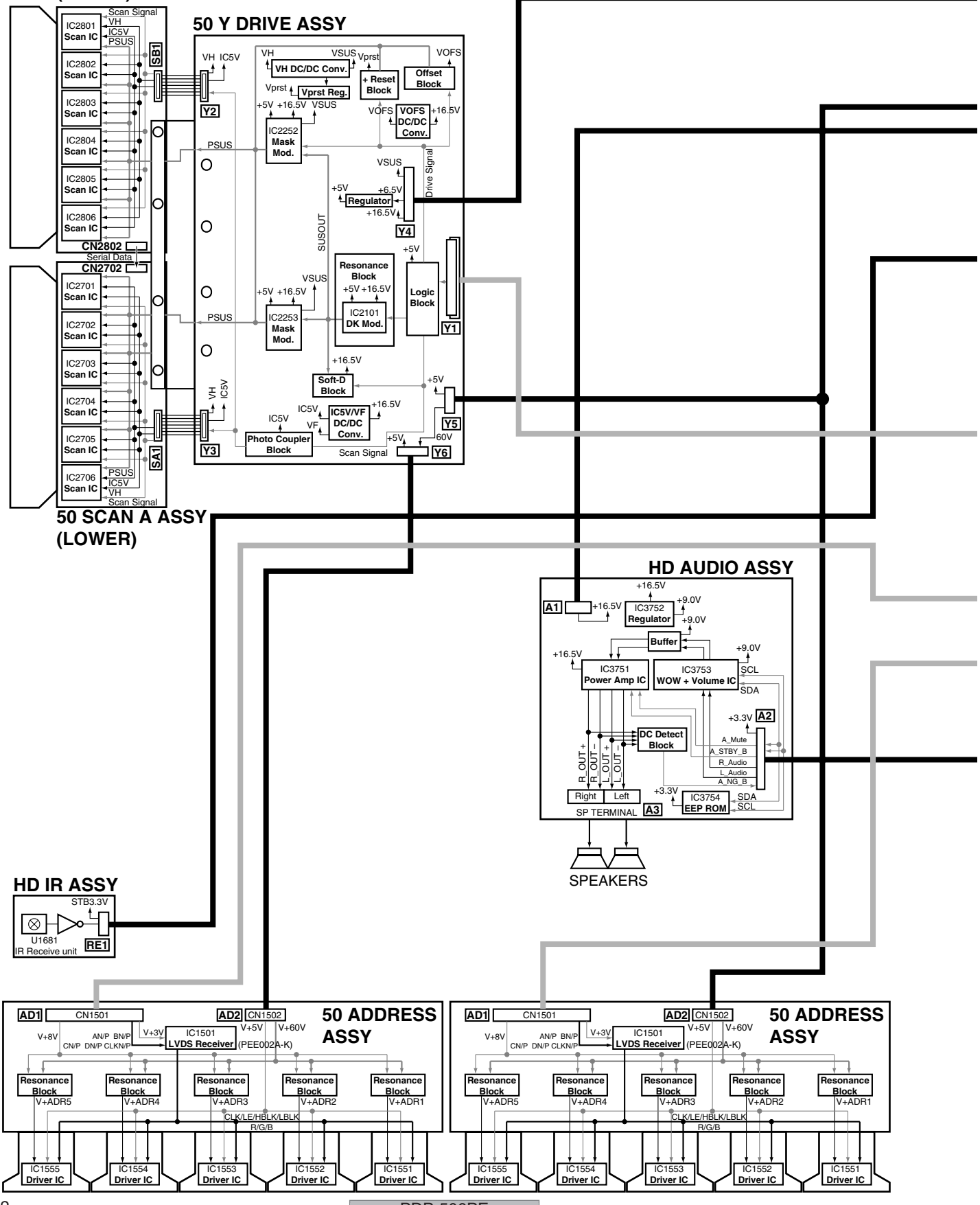
JA3002 AKP1277-

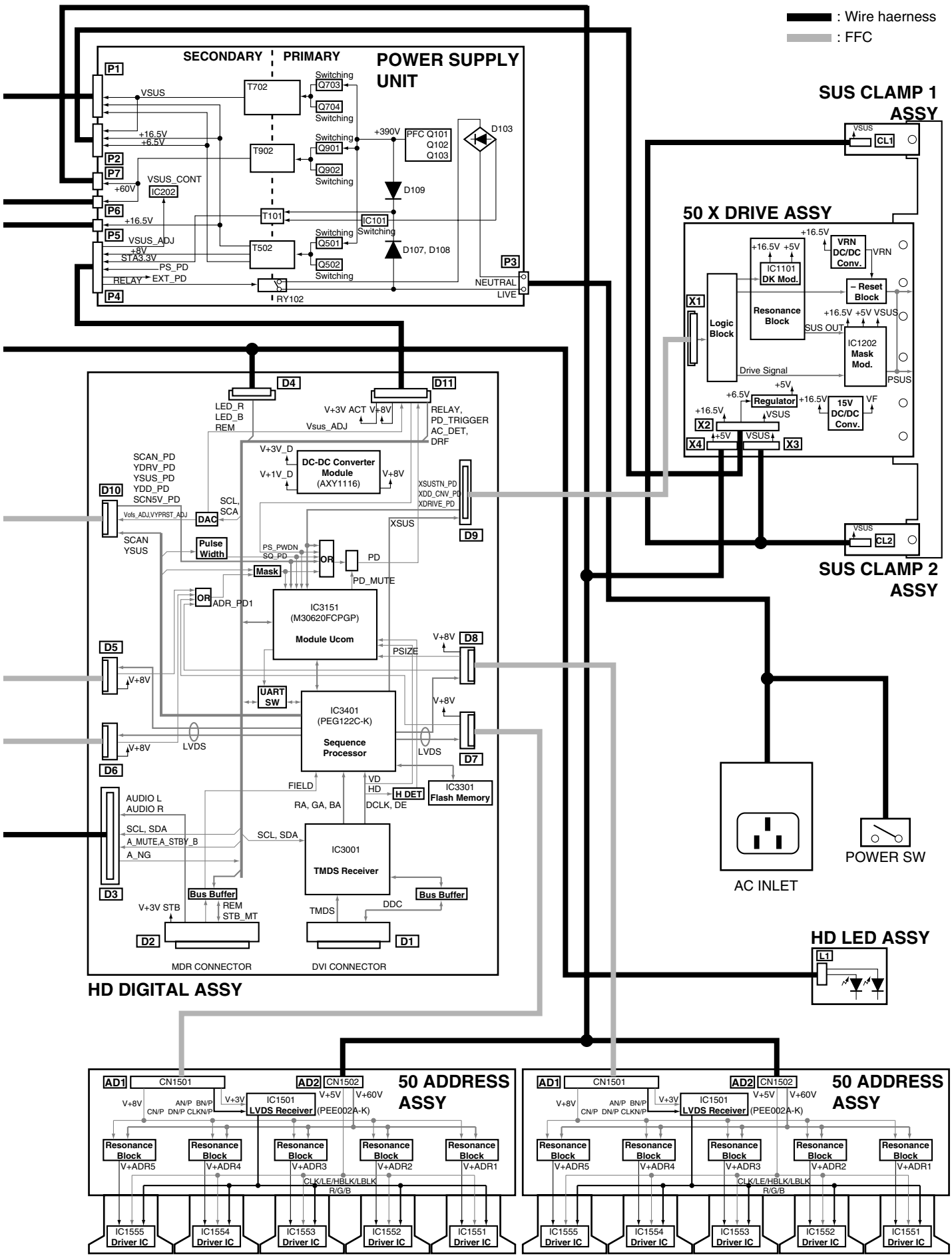
1. MR_ST_B	
2. MRXD	
3. P_ST_B	
4. STA3.3V	
5. AC_OFF	
6. GND_D	
7. REQ	
8. STP3.3V	
9. KEY_B	
10. MR_ST_B	
11. MTXD	
12. GND_D	
13. AUDIO_R	
14. REM_B	
15. STB_MT	
16. GND_D	
17. VIS	
18. FIELD	
19. GND_D	
20. AUDIO_L	

- When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

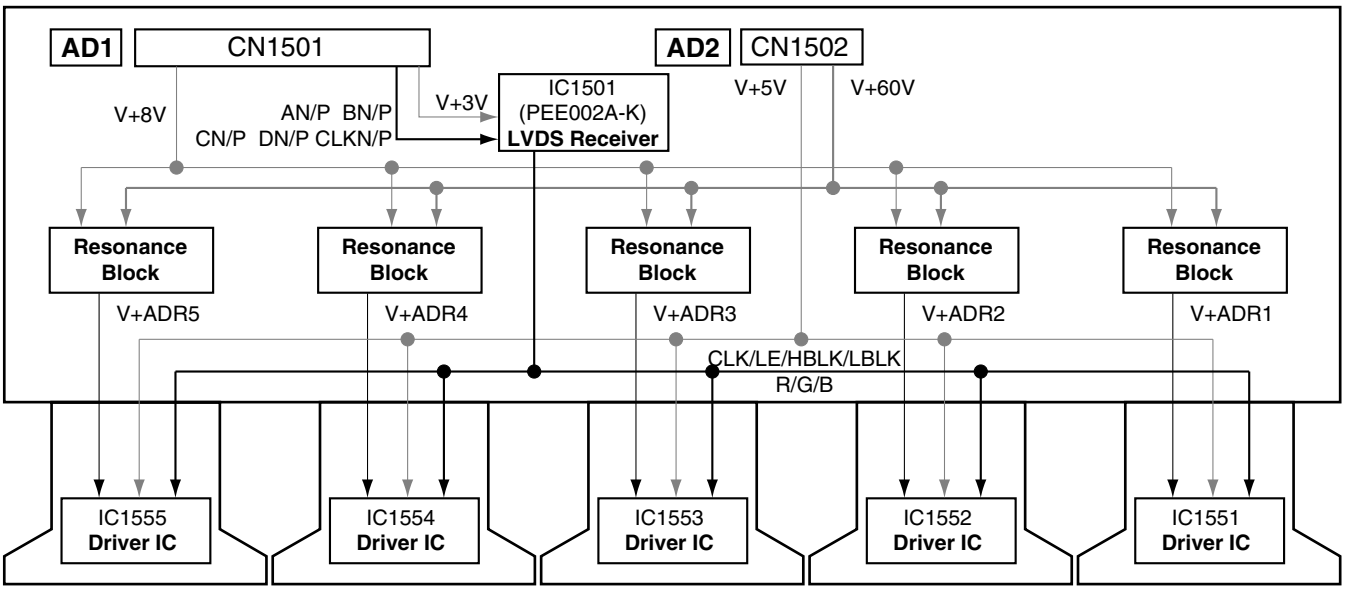


3.2 OVERALL BLOCK DIAGRAM

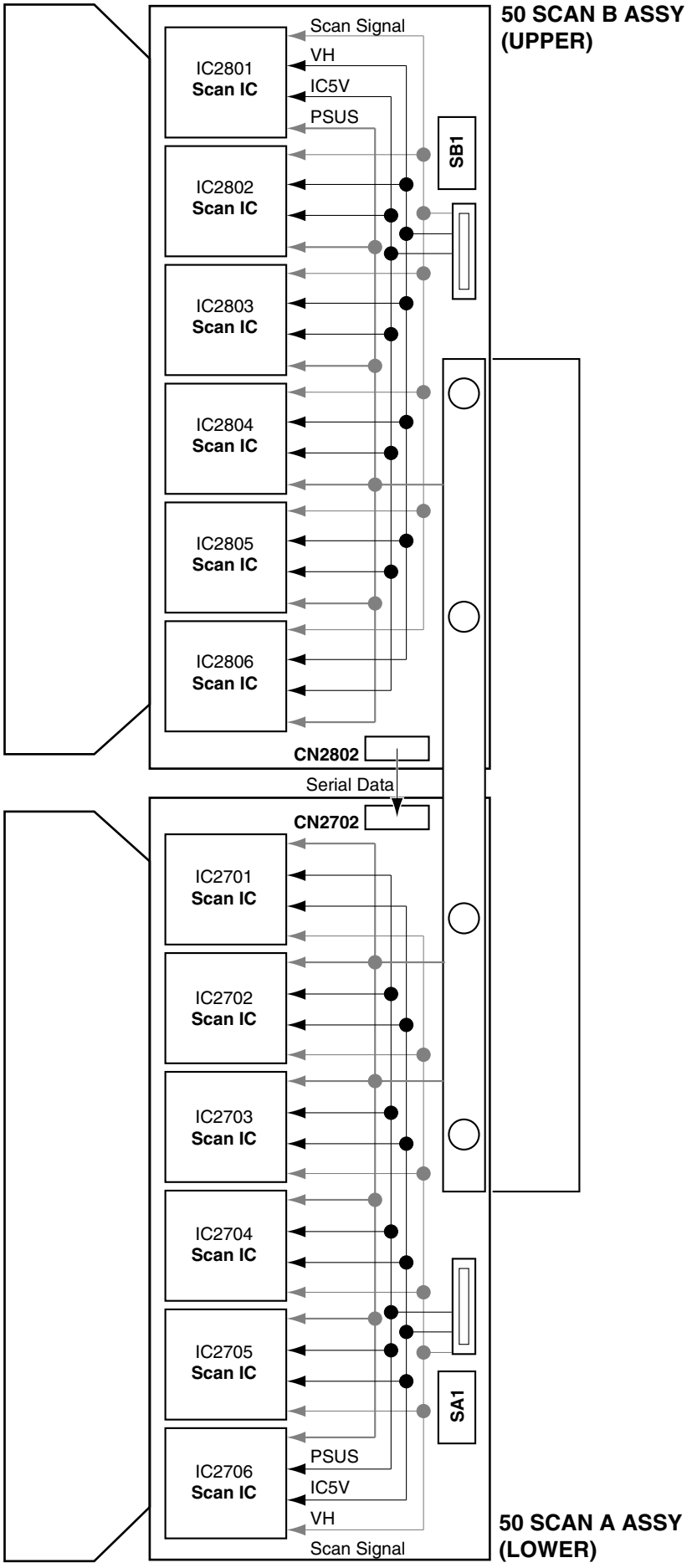



: Wire haerness
: FFC
POWER SUPPLY UNIT
SECONDARY
PRIMARY
P1
P2
P3
P4
P5
P6
P7
VSUS
+16.5V
+6.5V
+60V
VSUS_CONT
IC202
+16.5V
VSUS_ADJ
+8V
STA3.3V
PS_PD
RELAY
EXT_PD
RY102
T702
T902
T101
T502
Switching
Q703
Q704
Q901
Q902
Q501
Q502
+390V
PFC Q101
Q102
Q103
D103
D109
IC101
D107, D108
NEUTRAL
LIVE
SUS CLAMP 1 ASSY
CL1
50 X DRIVE ASSY
VRN DC/DC Conv.
VRN
IC1101 DK Mod.
– Reset Block
Resonance Block
Logic Block
X1
SUS OUT
IC1202 Mask Mod.
Drive Signal
PSUS
Regulator
15V DC/DC Conv.
VF
X2
X3
X4
SUS CLAMP 2 ASSY
CL2
D4
D11
LED_R
LED_B
REM
V+3V ACT
V+8V
Vsus_ADJ
RELAY,
PD_TRIGGER
AC_DET,
DRF
V+3V_D
V+1V_D
DC-DC Converter Module (AXY1116)
SCAN_PD
YDRV_PD
YSUS_PD
YDD_PD
SCN5V_PD
D10
Vofs_ADJ,VYPRST_ADJ
DAC
SCL,
SCA
SCAN
YSUS
Pulse Width
Mask
PS_PWDN
SQ_PD
OR
PD
PD_MUTE
ADR_PD1
XSUSTN_PD
XDD_CNV_PD
XDRIVE_PD
D9
XSUS
IC3151 (M30620FCPGP)
Module Ucom
D5
D8
PSIZE
UART SW
IC3401 (PEG122C-K)
Sequence Processor
D6
D7
LVDS
FIELD
VD
HD
H DET
IC3301 Flash Memory
RA, GA, BA
DCLK, DE
AUDIO L
AUDIO R
SCL, SDA
A_MUTE,A_STBY_B
A_NG
IC3001
TMDS Receiver
D3
Bus Buffer
V+3V STB
REM
STB_MT
TMDS
DDC
D2
D1
MDR CONNECTOR
DVI CONNECTOR
HD DIGITAL ASSY
AC INLET
POWER SW
HD LED ASSY
L1
AD1
CN1501
AD2
CN1502
50 ADDRESS ASSY
AN/P BN/P
CN/P DN/P CLKN/P
IC1501 LVDS Receiver (PEE002A-K)
V+3V
V+5V
V+60V
Resonance Block
V+ADR5
V+ADR4
V+ADR3
V+ADR2
V+ADR1
CLK/LE/HBLK/LBLK
R/G/B
IC1555 Driver IC
IC1554 Driver IC
IC1553 Driver IC
IC1552 Driver IC
IC1551 Driver IC

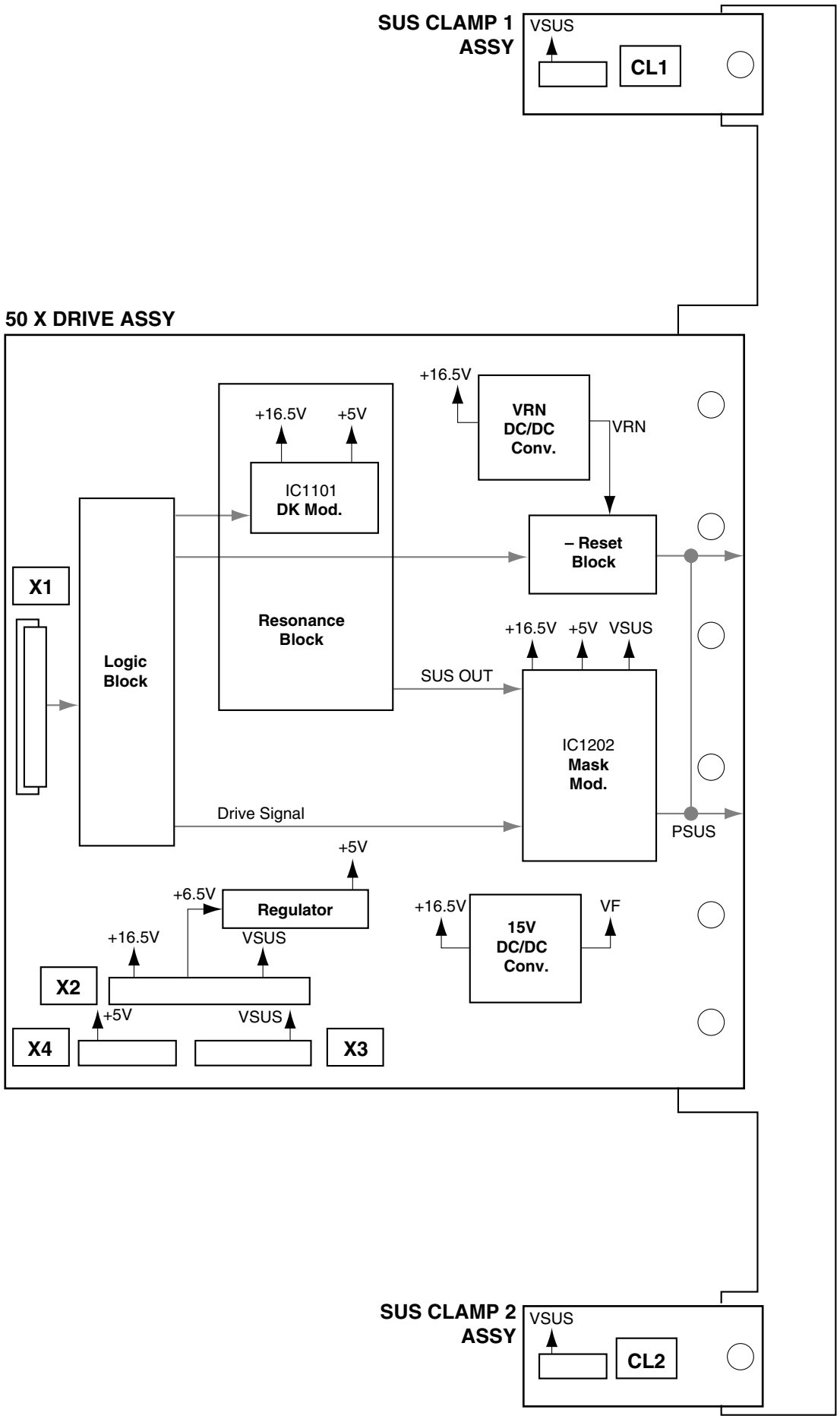
3.3 50 ADDRESS ASSY



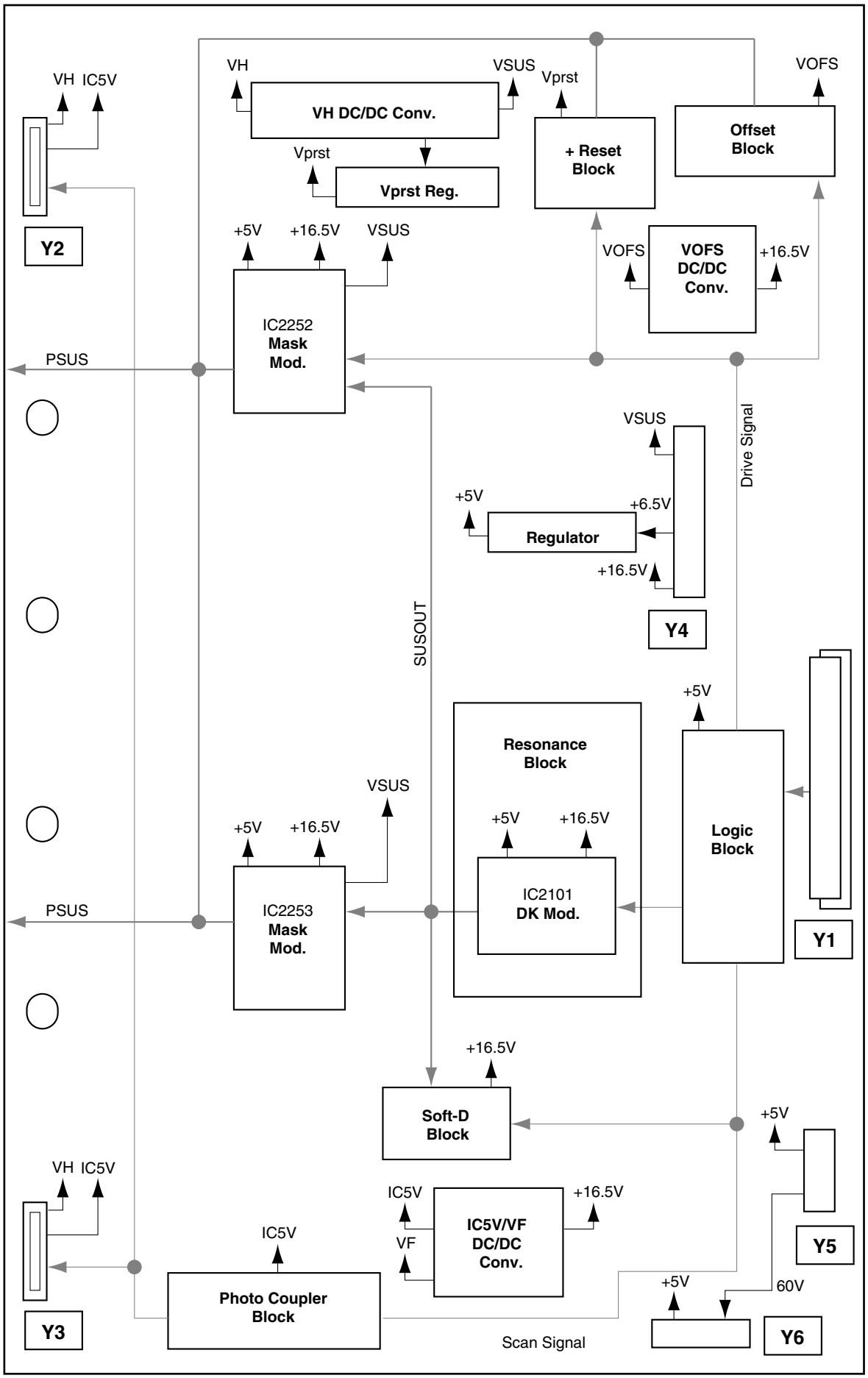
3.4 50 SCAN A and B ASSYS



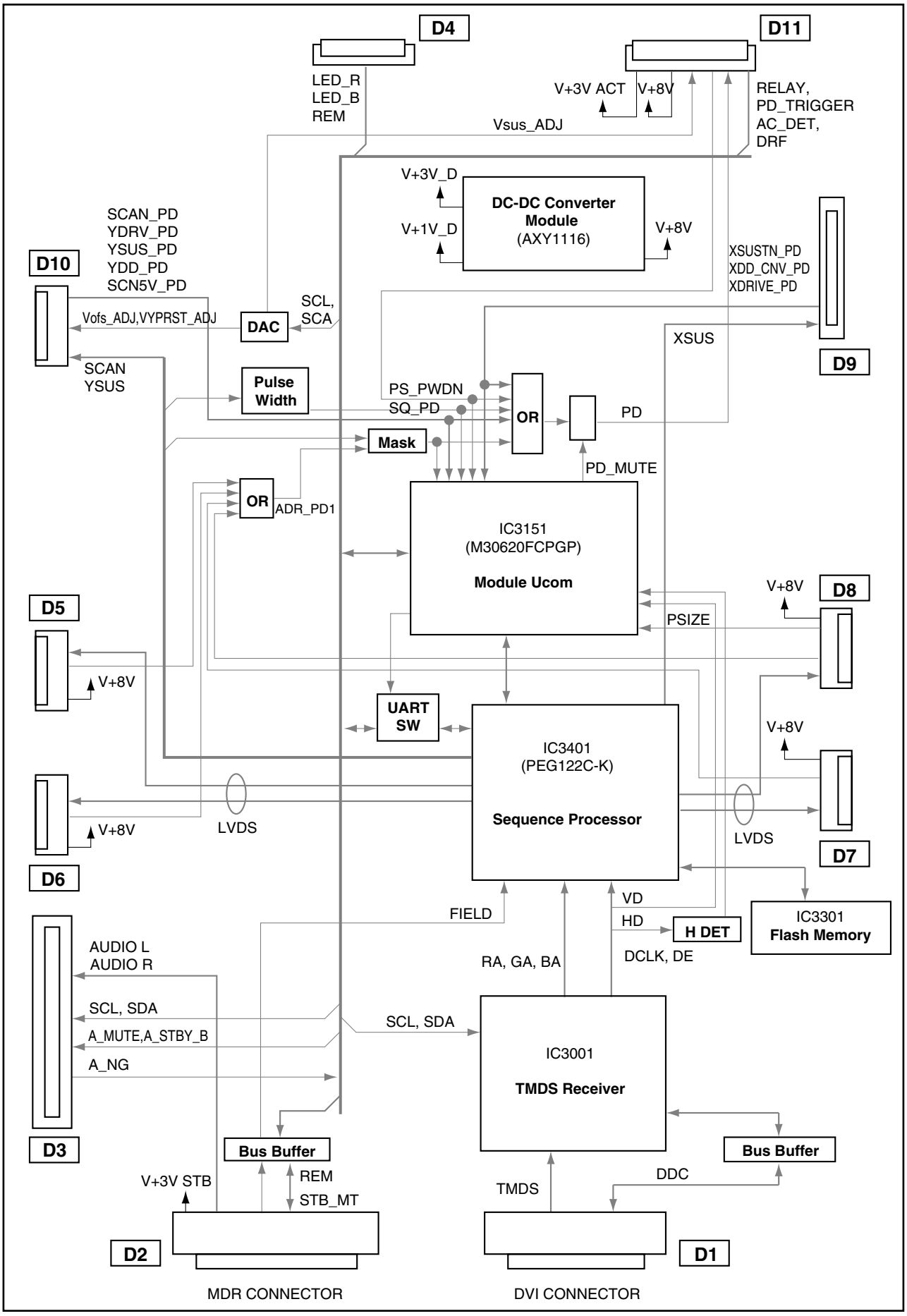
3.5 50 X DRIVE, SUS CLAMP 1 and SUS CLAMP 2 ASSYS



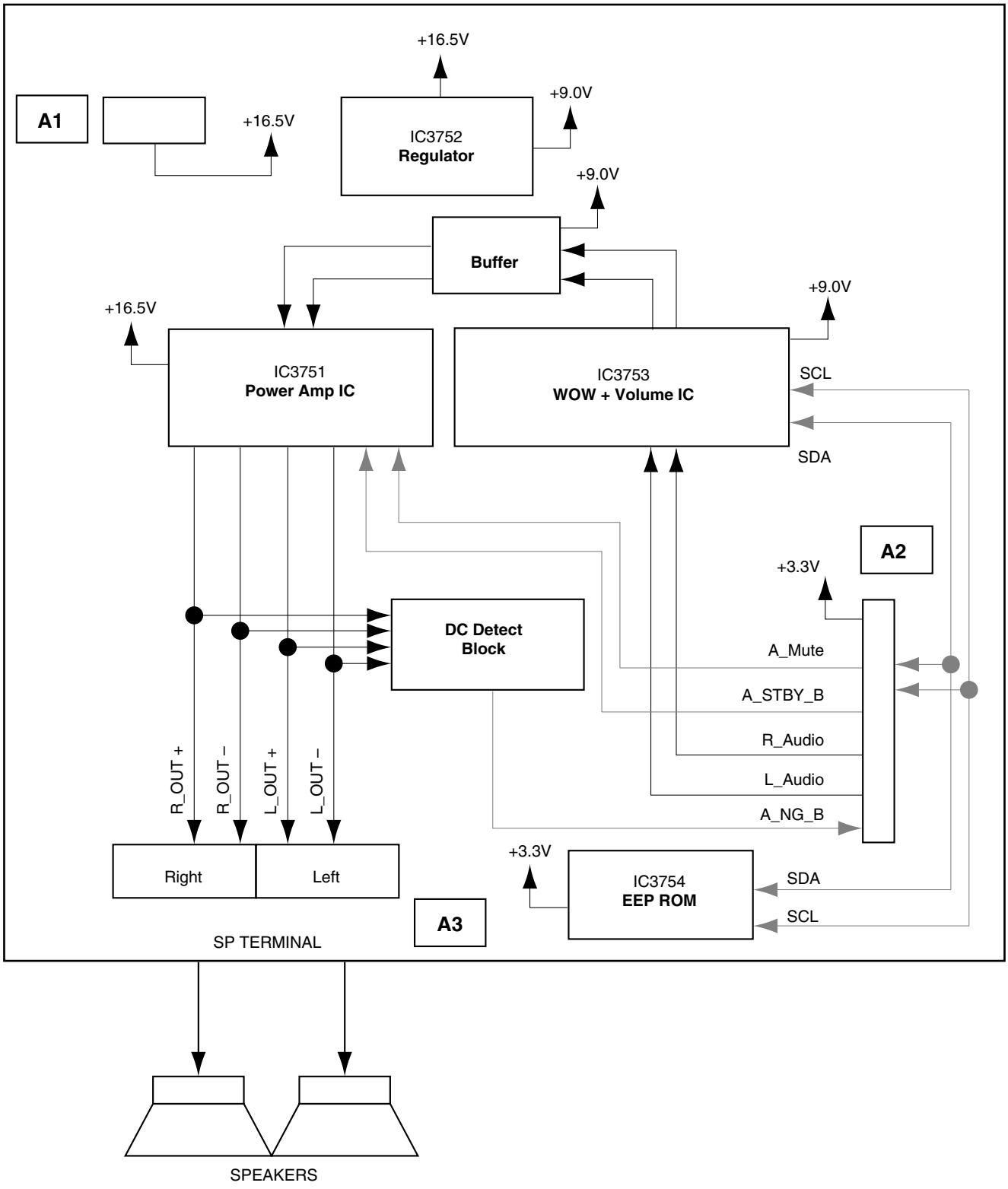
3.6 50 Y DRIVE ASSY



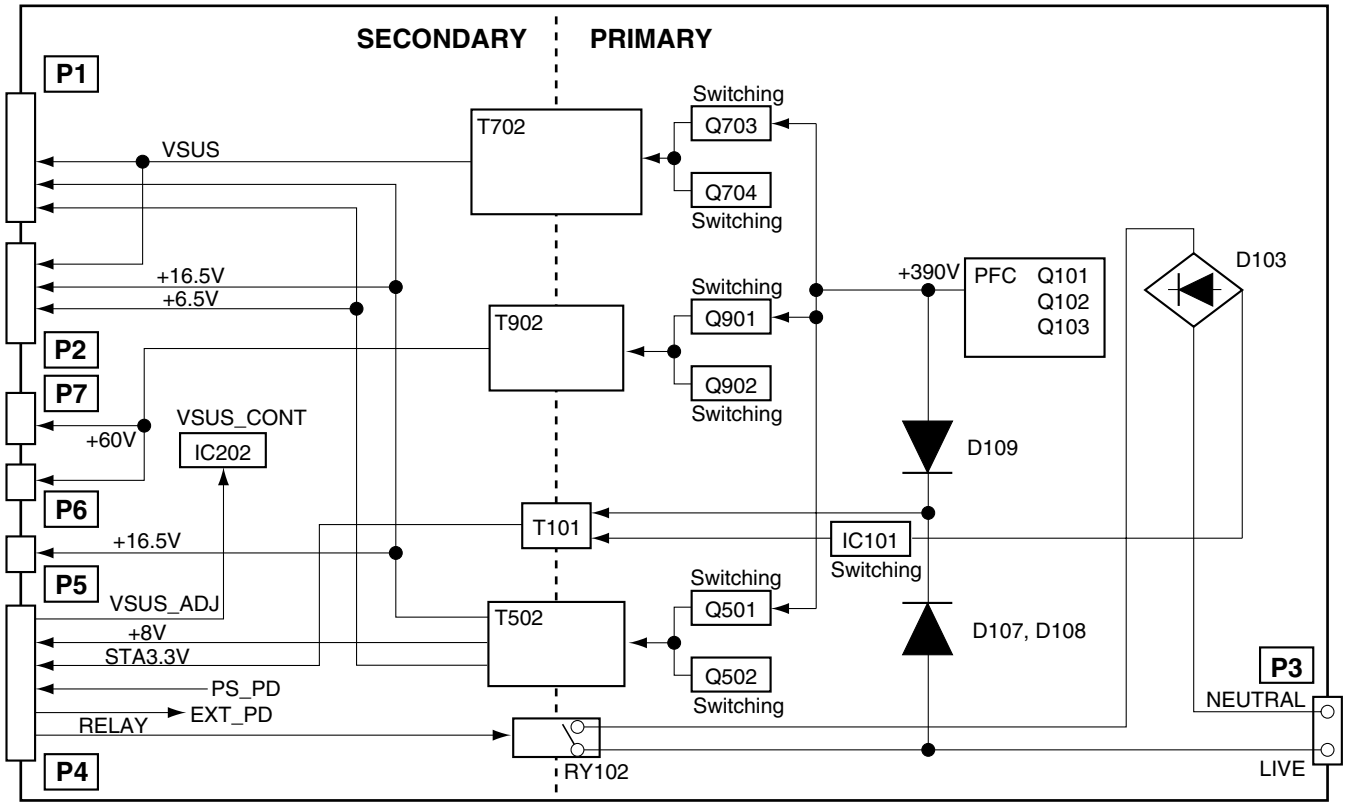
3.7 HD DIGITAL ASSY



3.8 HD AUDIO ASSY



3.9 POWER SUPPLY UNIT



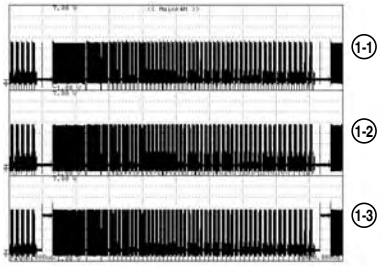
3.10 WAVEFORMS

Note : The encircled numbers denote measuring point in the schematic diagram.
Refer to service manual (ARP3268).

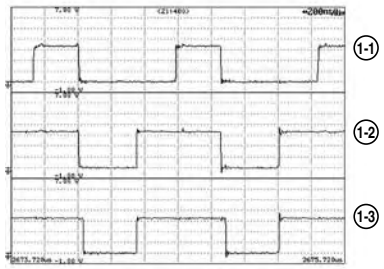
50 ADDRESS ASSY

50 ADDRESS RESONANCE BLOCK

① Control signal of resonance circuit (1 field)
Input : VIDEO 60Hz
Signal : Color-bar (MKSS17)
①-1 CH1 : ADR_B2
V : 1V/div H : 2msec/div
①-2 CH2 : ADR_U2
V : 1V/div H : 2msec/div
①-3 CH3 : ADR_D2
V : 1V/div H : 2msec/div

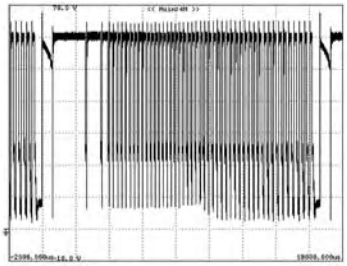


① Control signal of resonance circuit (2 FS)
Input : VIDEO 60Hz
Signal : Color-bar (MKSS17)
①-1 CH1 : ADR_B2
V : 1V/div H : 2msec/div
①-2 CH2 : ADR_U2
V : 1V/div H : 2msec/div
①-3 CH3 : ADR_D2
V : 1V/div H : 2msec/div

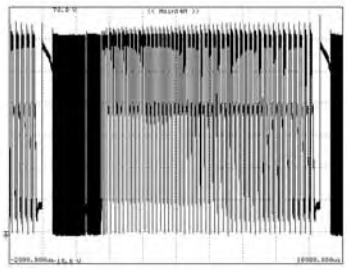


50 ADDRESS LOGIC BLOCK

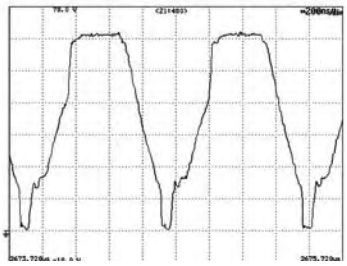
② VADR (1 field)
Input : VIDEO 60Hz
Signal : Color-bar (MKSS17)
CH2 : IC1555-pin 3 (VDD2)
V : 10V/div H : 2msec/div



② VADR (1 field)
Input : VIDEO 60Hz
Signal : Checkered pattern of Black-White (MKSS13)
CH2 : IC1555-pin 3 (VDD2)
V : 10V/div H : 2msec/div

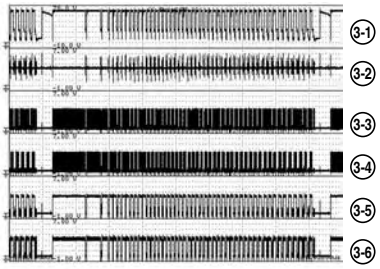


② VADR (2 FS)
Input : VIDEO 60Hz
Signal : Checkered pattern of Black-White (MKSS13)
CH2 : IC1555-pin 3 (VDD2)
V : 10V/div H : 200nsec/div

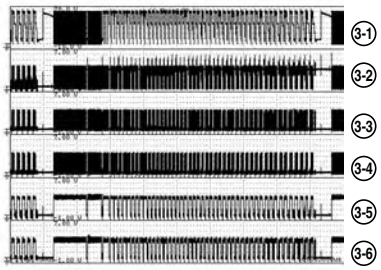


TCP LOGIC

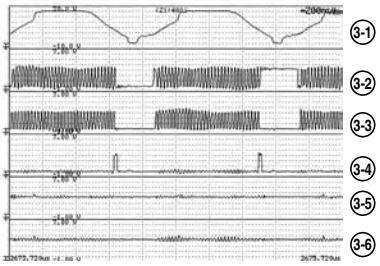
③ Incoming signal of TCP (1 field)
Input : VIDEO 60Hz
Signal : Color-bar (MKSS17)
③-1 CH1 : IC1555-pin 3 (VDD2)
V : 10V/div H : 2msec/div
③-2 CH2 : IC1555-pin 9 (A3)
V : 1V/div H : 2msec/div
③-3 CH3 : IC1555-pin 16 (CLK)
V : 1V/div H : 2msec/div
③-4 CH4 : IC1555-pin 14 (LE)
V : 1V/div H : 2msec/div
③-5 CH5 : IC1555-pin 19 (HBLK)
V : 1V/div H : 2msec/div
③-6 CH6 : IC1555-pin 17 (LBLK)
V : 1V/div H : 2msec/div



③ Incoming signal of TCP (1 field)
Input : VIDEO 60Hz
Signal : Checkered pattern of Black-White (MKSS13)
③-1 CH1 : IC1555-pin 3 (VDD2)
V : 10V/div H : 2msec/div
③-2 CH2 : IC1555-pin 9 (A3)
V : 1V/div H : 2msec/div
③-3 CH3 : IC1555-pin 16 (CLK)
V : 1V/div H : 2msec/div
③-4 CH4 : IC1555-pin 14 (LE)
V : 1V/div H : 2msec/div
③-5 CH5 : IC1555-pin 19 (HBLK)
V : 1V/div H : 2msec/div
③-6 CH6 : IC1555-pin 17 (LBLK)
V : 1V/div H : 2msec/div



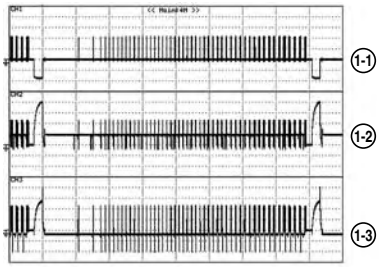
③ Incoming signal of TCP (Resonance part)
Input : VIDEO
Signal : Checkered pattern of Black-White (MKSS13)
③-1 CH1 : IC1555-pin 3 (VDD2)
V : 10V/div H : 200nsec/div
③-2 CH2 : IC1555-pin 9 (A3)
V : 1V/div H : 200nsec/div
③-3 CH3 : IC1555-pin 16 (CLK)
V : 1V/div H : 200nsec/div
③-4 CH4 : IC1555-pin 14 (LE)
V : 1V/div H : 200nsec/div
③-5 CH5 : IC1555-pin 19 (HBLK)
V : 1V/div H : 200nsec/div
③-6 CH6 : IC1555-pin 17 (LBLK)
V : 1V/div H : 200nsec/div



50 X DRIVE, 50 Y DRIVE ASSY

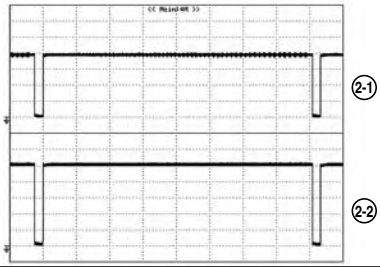
1 Drive output signal (1 field, Color-bar)

1-1 **CH1 : R1277 (XPSUS) - K1203 (SUSGND)**
V : 100V/div H : 2msec/div (X DRIVE Assy)
1-2 **CH2 : K2701 (SCANOUT) - K2330 (SUSGND)**
V : 100V/div H : 2msec/div (SCAN A Assy)
1-3 **CH3 : F2301 (YPSUS) - K2330 (SUSGND)**
V : 100V/div H : 2msec/div (Y DRIVE Assy)



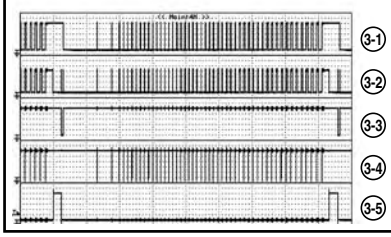
2 X Drive pulse control signal (Color-bar)

2-1 **CH1 : K1009 (XSUS-MSK) - K1001 (DGND)**
V : 1V/div H : 2msec/div (X DRIVE Assy)
2-2 **CH2 : K1005 (XNR-D) - K1001 (DGND)**
V : 1V/div H : 2msec/div (X DRIVE Assy)



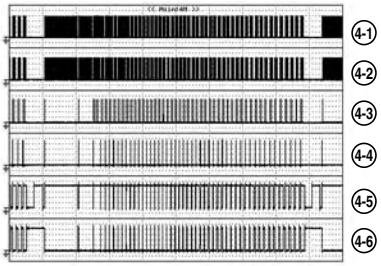
3 Y Drive pulse control signal (Color-bar)

3-1 **CH1 : K2007 (YNOFS) - K2002 (GND_D)**
V : 1V/div H : 2msec/div (Y DRIVE Assy)
3-2 **CH2 : K2005 (YSUS-MSK) - K2002 (GND_D)**
V : 1V/div H : 2msec/div (Y DRIVE Assy)
3-3 **CH3 : K2008 (YNRST) - K2002 (GND_D)**
V : 1V/div H : 2msec/div (Y DRIVE Assy)
3-4 **CH4 : K2006 (SOFT-D) - K2002 (GND_D)**
V : 1V/div H : 2msec/div (Y DRIVE Assy)
3-5 **CH5 : K2023 (YPR-U) - K2002 (GND_D)**
V : 1V/div H : 2msec/div (Y DRIVE Assy)



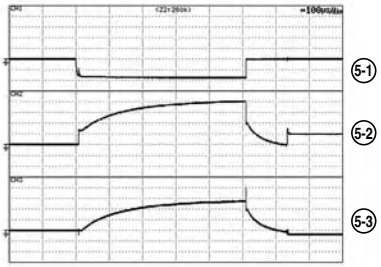
4 Scan control signal (1 field, Color-bar)

4-1 **CH1 : TP2001 (LE) - K2002 (GND-D)**
V : 1V/div H : 2msec/div (X DRIVE Assy)
4-2 **CH2 : TP2008 (CLK) - K2002 (GND-D)**
V : 1V/div H : 2msec/div (X DRIVE Assy)
4-3 **CH3 : TP2003 (SI-H) - K2002 (GND-D)**
V : 1V/div H : 2msec/div (X DRIVE Assy)
4-4 **CH4 : TP2004 (CLR) - K2002 (GND-D)**
V : 1V/div H : 2msec/div (X DRIVE Assy)
4-5 **CH5 : TP2005 (OC2) - K2002 (GND-D)**
V : 1V/div H : 2msec/div (X DRIVE Assy)
4-6 **CH6 : TP2006 (OC1) - K2002 (GND-D)**
V : 1V/div H : 2msec/div (X DRIVE Assy)



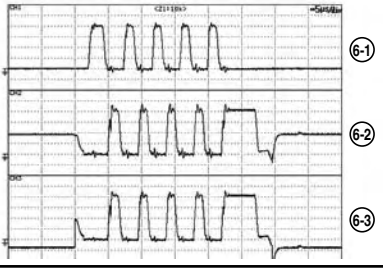
5 Reset pulse signal

5-1 **CH1 : R1277 (XPSUS) - K1203 (SUSGND)**
V : 100V/div H : 100µsec/div (X DRIVE Assy)
5-2 **CH2 : K2701 (SCANOUT) - K2330 (SUSGND)**
V : 100V/div H : 100µsec/div (SCAN A Assy)
5-3 **CH3 : F2301 (YPSUS) - K2330 (SUSGND)**
V : 100V/div H : 100µsec/div (Y DRIVE Assy)



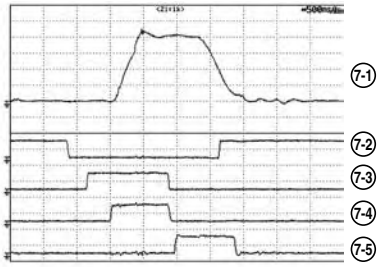
6 Sustain pulse signal (1 sub, sub field)

6-1 **CH1 : R1277 (XPSUS) - K1203 (SUSGND)**
V : 50V/div H : 5µsec/div (X DRIVE Assy)
6-2 **CH2 : K2701 (SCANOUT) - K2330 (SUSGND)**
V : 50V/div H : 5µsec/div (SCAN A Assy)
6-3 **CH3 : F2301 (YPSUS) - K2330 (SUSGND)**
V : 50V/div H : 5µsec/div (Y DRIVE Assy)



7 Sustain signal

7-1 **CH1 : F2301 (YPSUS) - K2330 (SUSGND)**
V : 50V/div H : 500nsec/div (Y DRIVE Assy)
7-2 **CH2 : K2004 (YSUS-G) - K2002 (DGND)**
V : 5V/div H : 500nsec/div (Y DRIVE Assy)
7-3 **CH3 : K2011 (YSUS-U) - K2002 (DGND)**
V : 5V/div H : 500nsec/div (Y DRIVE Assy)
7-4 **CH4 : K2009 (YSUS-B) - K2002 (DGND)**
V : 5V/div H : 500nsec/div (Y DRIVE Assy)
7-5 **CH5 : K2010 (YSUS-D) - K2002 (DGND)**
V : 5V/div H : 500nsec/div (Y DRIVE Assy)



5. PCB PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω → 56 x 10^1 → 561 ..... RD1/4PU 5 6 1 J
47k Ω → 47 x 10^3 → 473 ..... RD1/4PU 4 7 3 J
0.5 Ω → R50 ..... RN2H R 5 0 K
1 Ω → 1R0 ..... RS1P 1 R 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω → 562 x 10^1 → 5621 ..... RN1/4PC 5 6 2 1 F

■ LIST OF WHOLE PCB ASSEMBLIES

Mark	Symbol and Description	PDP-506PE /WYVI	PDP-506PU /KUCXC
NSP	1..PANEL CHASSIS (506) ASSY	AWU1143	AWU1143
NSP	2..50 ADDRESS ASSY	AWV2208	AWV2208
NSP	2..50 SCAN ASSY	AWV2211	AWV2211
NSP	3..50 SCAN A ASSY	AWW1026	AWW1026
NSP	3..50 SCAN B ASSY	AWW1027	AWW1027
NSP	1..50 X DRIVE ASSY	AWV2257	AWV2209 or AWV2257
	2..50 X DRIVE ASSY	AWW1075	AWW1020 or AWW1075
	2..SUS CLAMP 1 ASSY	AWW1022	AWW1022
	2..SUS CLAMP 2 ASSY	AWW1023	AWW1023
	1..50 Y DRIVE ASSY	AWV2258	AWV2210 or AWV2258
NSP	1..HD DIGITAL ASSY	AWV2202	AWV2202
	2..HD DIGITAL ASSY	AWW1028	AWW1028
	2..HD LED ASSY	AWW1029	AWW1029
	2..HD IR ASSY	AWW1030	AWW1030
	1..HD AUDIO ASSY	AWV2203	AWV2203
⚠	1..POWER SUPPLY UNIT	AXY1112	AXY1112

50 X DRIVE ASSY

AWW1075 and AWW1020 are constructed the same except for the following :

Mark	Symbol and Description	AWW1075	AWW1020
	IC1101	AXF1142	AXF1155
	C1101	ACG1112 (0.22U/250V)	ACG1088 (0.1U/250V)
	C1106-C1110	Not used	ACE1178
	C1112, C1113 (0.22U/250V)	ACG1112	Not used
	C1161-C1164, C1166	ACE1168	Not used
	C1297, C1298 (3300p/630V)	ACG1129	Not used

50 Y DRIVE ASSY

AWV2258 and AWV2210 are constructed the same except for the following :

Mark	Symbol and Description	AWV2258	AWV2210
	IC2101	AXF1142	AXF1155
	C2103	ACG1112 (0.22U/250V)	ACG1088 (0.1U/250V)
	C2107, C2108 (0.22U/250V)	ACG1112	Not used
	C2131-C2134, C2136	ACE1168	ACE1178
	C2271	ACG1124 (0.1U/100V)	ACG1118 (0.33U/100V)
	C2272 (0.1U/100V)	ACG1124	Not used

■ PCB PARTS LIST FOR PDP-506PE/WYVI UNLESS OTHER WISE NOTED

Mark	No.	Description	Part No.
		50 ADDRESS ASSY	
		[50 ADR LOGIC BLOCK]	
		SEMICONDUCTORS	
	IC1501		PEE002A
		COILS AND FILTERS	
	L1504	CHIP SOLID INDUCTOR	QTL1013
		CAPACITORS	
	C1501,C1502		CKSRYB105K6R3
	C1509,C1510		CKSSYB102K50
	C1503-C1507,C1551-C1555		CKSSYF104Z16
		RESISTORS	
	R1530,R1531		RS1/16S0R0J
	R1505-R1509		RS1/16SS1000F
	Other Resistors		RS1/16SS###J
		OTHERS	
	CN1501	40P CONNECTOR	AKM1217
	CN1502	PH CONNECTOR 4P	AKM1290
		[50 ADR RESONANCE BLOCK]	
		SEMICONDUCTORS	
	IC1601,IC1602		TND307TD
	Q1613		2SA1163
	Q1614-Q1616		HAT1110R
	Q1606,Q1608,Q1611		QSZ2
	Q1612		RN1901
	Q1601-Q1605		SP8M41
	D1612		1SS302
	D1625-D1629		1SS355
	D1631-D1650		EP05FA20
	D1601,D1605,D1607,D1610,D1613		UDZS15(B)
	D1616,D1620,D1622		UDZS15(B)
		COILS AND FILTERS	
	L1601-L1605	SMD COIL	ATH1163
		CAPACITORS	
	C1609 (0.1U/100V)		ACG1098
	C1601,C1606,C1610 (0.068U/100V)		ACG1123
	C1611,C1614 (0.068U/100V)		ACG1123
	C1602-C1605 (56UF/80V)		ACH1405
	C1613		CKSRYB104K25
	C1619		CKSYB105K16
		RESISTORS	
	R1606,R1611,R1613,R1621		RS1/16SS###J
	Other Resistors		RS1/16S###J
		50 SCAN A ASSY	
		SEMICONDUCTORS	
	IC2701-IC2706		AN16025A
	D2701-D2707		1SS355
		CAPACITORS	
	C2701,C2711,C2721 (0.1U/250V)		ACG1088
	C2731,C2741,C2751 (0.1U/250V)		ACG1088
	C2710,C2720,C2730,C2740,C2750		CCSRCH181J50
	C2760		CCSRCH181J50
	C2708,C2709,C2718,C2719		CCSRCH331J50
	C2728,C2729,C2738,C2739		CCSRCH331J50
	C2748,C2749,C2758,C2759		CCSRCH331J50
	C2705-C2707,C2715-C2717		CCSRCH390J50
	C2725-C2727,C2735-C2737		CCSRCH390J50
	C2745-C2747,C2755-C2757		CCSRCH390J50
	C2703,C2713,C2723,C2733,C2743		CKSRYB105K6R3
	C2753		CKSRYB105K6R3
		RESISTORS	
	R2705,R2710,R2713,R2716,R2719		RAB4C221J
	R2722		RAB4C221J
	Other Resistors		RS1/16S###J
		OTHERS	
	CN2702	PH CONNECTOR 3P	AKM1274
	CN2701	13P BRIDGE CONNECTOR	AKP1261
		50 SCAN B ASSY	
		SEMICONDUCTORS	
	IC2801-IC2806		AN16025A
	IC2807		TC7SH08FUS1
	D2801-D2807		1SS355
		CAPACITORS	
	C2801,C2811,C2821 (0.1U/250V)		ACG1088
	C2831,C2841,C2851 (0.1U/250V)		ACG1088
	C2810,C2820,C2830,C2840,C2850		CCSRCH181J50
	C2860		CCSRCH181J50
	C2808,C2809,C2818,C2819		CCSRCH331J50
	C2828,C2829,C2838,C2839		CCSRCH331J50
	C2848,C2849,C2858,C2859		CCSRCH331J50
	C2805-C2807,C2815-C2817		CCSRCH390J50
	C2825-C2827,C2835-C2837		CCSRCH390J50
	C2845-C2847,C2855-C2857		CCSRCH390J50
	C2803,C2813,C2823,C2833,C2843		CKSRYB105K6R3
	C2853,C2861		CKSRYB105K6R3
		RESISTORS	
	R2803,R2808,R2811,R2814,R2817		RAB4C221J
	R2820		RAB4C221J
	Other Resistors		RS1/16S###J
		OTHERS	
	CN2802	PH CONNECTOR 3P	AKM1274
	CN2801	13P BRIDGE CONNECTOR	AKP1261
		50 X DRIVE ASSY	
		[50X LOGIC BLOCK]	
		SEMICONDUCTORS	
	IC1001		TC74ACT541FT
	IC1002		TC74VHC00FTS1

Mark No.	Description	Part No.
CAPACITORS		
C1003		CEHAT470M16
C1001,C1002		CKSRYB104K16
RESISTORS		
R1001,R1003		RAB4C470J
R1008,R1009		RAB4C472J
Other Resistors		RS1/16S###J
OTHERS		
CN1001	18P FFC CONNECTOR	VKN1310
[50X RESONANCE BLOCK]		
SEMICONDUCTORS		
IC1101		AXF1142
IC1141		BA10393F
Q1141		2SC4116
D1101-D1105		D1FL40
COILS AND FILTERS		
L1103,L1104	CHOKE COIL	ATH1119
L1101,L1102	CHOKE COIL	ATH1187
L1105,L1106	CHOKE COIL	ATH1187
CAPACITORS		
C1161-C1164,C1116 (3.3U/250V)		ACE1168
C1101,C1112,C1113 (0.22U/250V)		ACG1112
C1121 (470p/630V)		ACG1126
C1105		CCG1186
C1141,C1142,C1144,C1145		CKSRYB104K16
C1102,C1146		CKSRYB105K6R3
C1103		CKSYB105K25
RESISTORS		
R1101		ACN1168
R1142,R1146		RS1/10S1003F
R1122,R1123		RS1/10S104J
R1148,R1150		RS1/16S5601F
R1151,R1155		RS1/16S6801F
R1106,R1121		RS2MMF100J
Other Resistors		RS1/16S###J
[50X SUS BLOCK]		
SEMICONDUCTORS		
IC1202		AXF1140
IC1201		MM1565AF
IC1252		PS9117
IC1251		TND301S
IC1271		TND307TD
Q1251		2SC2412K
Q1272		2SK3325-Z
D1281		1SS302
D1201		1SS355
D1252		CRH01
D1282		UDZS16(B)
D1251		UDZS5R6(B)
COILS AND FILTERS		
L1204,L1211	INDUCTOR	ATH1186
F1201	INDUCTOR	CTF1449
L1201,L1205,L1231		LFEA100J

Mark No.	Description	Part No.
CAPACITORS		
C1214-C1217		ACE1178
C1212,C1213		ACH1423
C1231		CEHAT101M10
C1206		CEHAT101M25
C1283		CEHAT2R2M2E
C1208		CEHAT470M16
C1222,C1272		CEHAT470M25
C1221		CKSRYB105K6R3
C1204,C1207,C1223,C1251,C1253		CKSRYF104Z50
C1273		CKSRYF104Z50
C1220		CKSYB105K25
RESISTORS		
R1204		ACN1166
R1213		ACN1168
R1276,R1277		RS3LMF470J
Other Resistors		RS1/16S###J
OTHERS		
KN1201-KN1206	GROUND PLATE	ANK-142
KN1208-KN1211	GROUND PLATE	ANK-142
CN1202	6P TOP POST	B6B-EH
CN1201	8P TOP POST	B8B-EH
[50X D-D CON BLOCK]		
SEMICONDUCTORS		
IC1321		PS2701A-1(L)
IC1326		TA76431FR
Q1324		2SA1037K
Q1302		2SC4081
Q1301,Q1323		2SD1898
Q1321,Q1325,Q1351		HN1C01FU
D1303,D1324		1SS301
D1304,D1307,D1325,D1328		1SS355
D1301,D1302,D1326,D1327		CRH01
D1321		D1FK60
D1329,D1330		UDZS4R7(B)
D1306,D1323,D1331		UDZS5R1(B)
COILS AND FILTERS		
⚠T1301	SWITCHING TRANS.	ATK1159
⚠T1321	SWITCHING TRANS.	ATK1160
CAPACITORS		
C1325		ACH1428
C1326		CEHAT100M50
C1302,C1321		CEHAT101M25
C1301,C1303,C1323		CKSRYB103K50
C1304,C1306,C1327		CKSRYB104K16
C1307,C1324		CKSYB105K25
RESISTORS		
R1337		RAB4C472J
R1321,R1322,R1326,R1339		RS1/10S224J
VR1321		CCP1392
Other Resistors		RS1/16S###J

Mark No.	Description	Part No.
SUS CLAMP 1 ASSY		
SEMICONDUCTORS		
D1631		DF20L60U
CAPACITORS		
C1632		ACE1179
OTHERS		
KN1632	GROUND PLATE	ANK-142
CN1631	3P TOP POST	B3B-EH
KN1631	WRAPPING TERMINAL	VNF1084
SUS CLAMP 2 ASSY		
SEMICONDUCTORS		
D1641		DF20L60U
CAPACITORS		
C1642		ACE1179
OTHERS		
KN1642	GROUND PLATE	ANK-142
CN1641	3P TOP POST	B3B-EH
KN1641	WRAPPING TERMINAL	VNF1084
50 Y DRIVE ASSY		
[50Y LOGIC BLOCK]		
SEMICONDUCTORS		
IC2002		TC74ACT540FT
IC2001,IC2004		TC74ACT541FT
IC2003,IC2005		TC74VHC08FTS1
CAPACITORS		
C2003		CEHAT470M16
C2001,C2002,C2004-C2006		CKSSYB104K10
RESISTORS		
R2003,R2006		RAB4C101J
R2001,R2002,R2017,R2021		RAB4C470J
R2004,R2005,R2019,R2020		RAB4C472J
Other Resistors		RS1/16S###J
OTHERS		
CN2001	40P CONNECTOR	AKM1217
[50Y RESONANCE BLOCK]		
SEMICONDUCTORS		
IC2101		AXF1142
IC2141		BA10393F
Q2141		2SC4081
D2101-D2105		D1FL40
COILS AND FILTERS		
L2103,L2104	CHOKE COIL	ATH1119
L2101,L2102	CHOKE COIL	ATH1187
L2105,L2106	CHOKE COIL	ATH1187
CAPACITORS		
C2131-C2134,C2136 (3.3U/250V)		ACE1168
C2103,C2107,C2108 (0.22U/250V)		ACG1112
C2104 (470p/630V)		ACG1126
C2106		CCG1186
C2101,C2145		CKSRYB105K6R3
C2141,C2143,C2144		CKSSYB104K10
C2102		CKSYB105K25
RESISTORS		
R2101		ACN1174
R2142,R2143		RS1/10S1003F
R2103,R2107		RS1/10S104J
R2146,R2149		RS1/16S5601F
R2147,R2151		RS1/16S6801F
R2102		RS2MMF100J
R2108		RS3LMF100J
Other Resistors		RS1/16S###J
[50Y SUS BLOCK]		
SEMICONDUCTORS		
IC2252,IC2253		AXF1141
IC2350		MM1565AF
IC2250		PS9117
IC2231,IC2251		TND301S
IC2203,IC2221		TND307TD
Q2202		2SA2142
Q2250		2SC4081
Q2290		2SK3050
Q2221		2SK3325-Z
Q2280,Q2281		2SK3399
D2233		1SS301
D2213		1SS302
D2203,D2212,D2351		1SS355
D2202,D2204,D2205,D2234		CRH01
D2251,D2252,D2272		CRH01
D2211		D1FK60
D2232,D2271		UDZS16(B)
D2250		UDZS5R6(B)
COILS AND FILTERS		
L2353	INDUCTOR	ATH1186
F2301-F2320	FERRITE BEAD	ATX1055
F2352	INDUCTOR	CTF1449
L2350,L2351,L2354		LFEA100J
CAPACITORS		
C2330,C2335,C2341,C2342		ACE1178
C2231 (0.33U/100V)		ACG1118
C2271,C2272 (0.1U/100V)		ACG1124
C2336,C2337		ACH1423
C2270		ACH1426
C2226		ACH1427
C2207		CCSRCH102J50
C2355,C2369		CEHAT101M10
C2357		CEHAT470M16
C2208,C2221,C2339,C2364		CEHAT470M25
C2356		CKSRYB104K16
C2353,C2358,C2359		CKSRYB105K6R3
C2363		CKSRYB473K16
C2209,C2222,C2230,C2252		CKSRYF104Z50
C2250		CKSSYB104K10
C2354,C2360		CKSYB105K25

Mark No.	Description	Part No.
RESISTORS		
R2352		ACN1166
R2304		ACN1174
R2360,R2362		ACN1178
R2277-R2279,R2281		ACN1241
R2210,R2211		RS1/10S151J
R2290		RS1MMF331J
R2222,R2224		RS2MMF5R6J
R2203		RS3LMF821J
Other Resistors		RS1/16S###J
OTHERS		
KN2350,KN2352	GROUND PLATE	ANK-142
KN2354	GROUND PLATE	ANK-142
KN2356,KN2357	GROUND PLATE	ANK-142
KN2359-KN2363	GROUND PLATE	ANK-142
CN2351,CN2352	KR CONNECTOR	B4B-PH-K
CN2350	9P TOP POST	B9B-EH
[50Y SCAN BLOCK]		
SEMICONDUCTORS		
IC2403,IC2405,IC2406,IC2408		PS9117
IC2401		PS9851-2(P)
IC2402,IC2407		TC74ACT540FT
COILS AND FILTERS		
L2401-L2403		LFEA100J
CAPACITORS		
C2404,C2411		ACH1413
C2401,C2407,C2414		CEHAT101M10
C2402,C2403,C2405,C2408-C2410		CKSSYB104K10
C2412		CKSSYB104K10
RESISTORS		
R2407,R2421		RAB4C220J
R2402,R2409		RS1/10S0R0J
Other Resistors		RS1/16S###J
OTHERS		
CN2401	15P BRIDGE CONNECTOR	AKM1200
CN2402	15P BRIDGE CONNECTOR	AKM1200
[50Y VH D-D CON BLOCK]		
SEMICONDUCTORS		
IC2531		BA10358F
IC2502		MIP2E3DMC
IC2503		PS2701A-1(L)
IC2534,IC2535		TA76431FR
Q2533		2SC2412K
Q2531		2SC3425
Q2532		2SD2568
Q2511		HN1C01FU
D2534		1SS355
D2522,D2524		CRH01
D2523,D2532		D1FK60
D2533		UDZS33(B)
D2536		UDZS4R7(B)
D2530,D2531		UDZS8R2(B)
COILS AND FILTERS		
⚠T2503	CONVERTER TRANS.	ATK1158
L2501		LFEA101J

Mark No.	Description	Part No.
CAPACITORS		
C2531		ACE1177
C2516		ACH1360
C2532		ACH1425
C2513		ACH1428
C2520		CEHAT101M16
C2515		CEHAT101M25
C2528		CEHAT221M16
C2514,C2525,C2534		CKSRYB104K16
C2521,C2533,C2535		CKSRYB104K25
RESISTORS		
R2553		RAB4C472J
R2558		RS1/10S0R0J
R2533,R2556		RS1/10S104J
R2534,R2535,R2541		RS1/10S2203F
R2548		RS1/16S1003F
R2550		RS1/16S1802F
R2549,R2557		RS1/16S4702F
R2542,R2545		RS1/16S5601F
VR2503		CCP1390
VR2531		CCP1392
Other Resistors		RS1/16S###J
[50Y D-D CON BLOCK]		
SEMICONDUCTORS		
IC2602		BA10358F
IC2601,IC2603,IC2606		PS2701A-1(L)
IC2605,IC2614		TA76431FR
Q2610		2SA1163
Q2601,Q2609		2SA1576A
Q2608		2SA2005
Q2607		2SC2713
Q2612		2SC4081
Q2605,Q2606		2SD1898
Q2603,Q2604,Q2611		DTC143EUA
Q2602,Q2613,Q2641		HN1C01FU
D2611		1SS226
D2604,D2612		1SS301
D2602,D2613-D2615		1SS355
D2601,D2603,D2609,D2618		CRH01
D2610		D1FL40
D2617		UDZS15(B)
D2607,D2608		UDZS4R7(B)
D2605		UDZS5R1(B)
D2616		UDZS5R6(B)
COILS AND FILTERS		
⚠T2602	CONVERTER TRANS.	ATK1156
⚠T2601	SWITCHING TRANS.	ATK1161
CAPACITORS		
C2608,C2610		CEHAT101M25
C2613		CEHAT221M25
C2606		CEHAT221M6R3
C2607		CKSRYB102K50
C2605,C2612,C2614		CKSRYB103K50
C2601,C2604,C2609		CKSRYB104K16
C2602,C2615		CKSRYB105K6R3
C2603		CKSRYF104Z50
C2611		CKSSYB104K10

Mark No.	Description	Part No.
	RESISTORS	
	R2613	RAB4C472J
	R2641,R2642	RS1/10S224J
A	R2629	RS1/16S1002F
	R2625,R2626	RS1/16S1501F
	R2608,R2612,R2630,R2632,R2635	RS1/16S4701F
	R2618	RS1/16S4702F
	R2636	RS1/16S5601F
	R2652	RS1/16S6801F
	R2627	RS3LMF151J
	VR2601	CCP1390
	Other Resistors	RS1/16S###J
B		
	HD DIGITAL ASSY	
	OTHERS	
	DD CON UNIT	AXY1116
	REMOTE RECEIVER UNIT	RPM7240-H4
	HD DIGITAL ASSY	
	[TMDS RX BLOCK]	
	SEMICONDUCTORS	
	IC3002	BA8274F
C	IC3001	SII1169CTU
	IC3004	SN74AHC32PW
	Q3009	2SC4081
	Q3007	DTA143EUA
	Q3004	DTC124EUA
	Q3005	DTC143EUA
	Q3002,Q3006,Q3008	RN1901
	Q3003	RN2901
	D3001,D3002	1SS355
	D3012	DA204U
	D3007-D3011	RB751V-40
D	D3003	UDZS6R8(B)
	COILS AND FILTERS	
	F3005 CHIP SOLID INDUCTOR	QTL1011
	L3003 CHIP SOLID INDUCTOR	QTL1013
	CAPACITORS	
	C3030	ACH1357
	C3034,C3036,C3038,C3040,C3042	ACH1396
	C3003,C3005,C3009,C3014,C3019	CCSRCH331J50
	C3046	CCSRCH470J50
	C3044,C3045	CCSSCH101J50
E	C3001,C3008,C3011,C3020,C3022	CCSSCH820J50
	C3025-C3027	CCSSCH820J50
	C3018,C3021,C3023,C3024	CKSRYF105Z10
	C3015-C3017,C3028,C3029	CKSSYF104Z16
	C3031,C3032,C3035,C3037,C3039	CKSSYF104Z16
	C3041,C3043	CKSSYF104Z16
	RESISTORS	
	R3007	RAB4C220J
	R3008-R3013	RAB4C470J
	R3018	RAB4C472J
F	R3021	RS1/16S3900F
	Other Resistors	RS1/16S###J

Mark No.	Description	Part No.
	OTHERS	
	CN3003 PH CONNECTOR 6P	AKM1277
	CN3004 PH CONNECTOR 12P	AKM1298
	JA3001 DVI CONNECTOR	AKP1276
	JA3002 MDR CONNECTOR	AKP1277
	[MODULE UCOM BLOCK]	
	SEMICONDUCTORS	
	IC3156	BR24L04FJ-W
	IC3151	M30620FCPGP-U5C
	IC3157	M62334FP
	IC3158	MM1522XU
	IC3155	SN74AHC08PW
	IC3152,IC3153	SN74AHC541PW
	IC3160	TC74VHC123AFTS1
	IC3159	TC7W126FU
	Q3151	2SJ461A
	D3156,D3159,D3161-D3163	1SS355
	D3151,D3152,D3154,D3155,D3158	DAN202U
	CAPACITORS	
	C3151	ACH1357
	C3164	CCSSCH101J50
	C3171,C3172,C3180	CKSRYB105K6R3
	C3154	CKSSYB102K50
	C3152,C3153,C3155-C3158	CKSSYF104Z16
	C3160-C3163,C3165,C3166,C3170	CKSSYF104Z16
	RESISTORS	
	R3160,R3171,R3176	RAB4C101J
	R3174	RAB4C103J
	Other Resistors	RS1/16S###J
	OTHERS	
	⚠X3151 CERAMIC RESONATOR	ASS1178
	[PANEL FLASH BLOCK]	
	SEMICONDUCTORS	
	IC3301	MBM29PL160TD75TN
	IC3304	PST3610UR
	IC3302,IC3305	PST3628UR
	IC3303	SN74AHC08PW
	Q3302	HN1C01FU
	Q3301	RN1901
	CAPACITORS	
	C3311	CCSRCH470J50
	C3317	CCSRCH471J50
	C3304,C3307,C3309	CKSRYB472K50
	C3305,C3310	CKSSYB102K50
	C3315	CKSSYB104K10
	C3301-C3303,C3306,C3308,C3316	CKSSYF104Z16
	RESISTORS	
	All Resistors	RS1/16S###J
	OTHERS	
	⚠X3302 CRYSTAL OSCILLATOR	ASS1188

Mark No.	Description	Part No.
[SQ ASIC BLOCK]		
SEMICONDUCTORS		
IC3401		PEG122C
COILS AND FILTERS		
F3401,F3402	EMI FILTER	CCG1162
L3401-L3403	CHIP SOLID INDUCTOR	QTL1013
CAPACITORS		
C3402,C3419 (100UF/6.3V)		ACH1396
C3425,C3441 (100UF/6.3V)		ACH1396
C3414-C3416,C3426-C3438		CKSRYF105Z10
C3403-C3410,C3412,C3413		CKSSYF104Z16
C3417,C3418,C3420-C3424		CKSSYF104Z16
C3439,C3440,C3442-C3449		CKSSYF104Z16
RESISTORS		
R3402,R3412		RAB4C101J
R3405-R3407,R3409,R3410		RAB4C220J
R3416,R3417		RAB4C220J
R3425		RS1/16S5601F
Other Resistors		RS1/16S###J
[ADDRESS BLOCK]		
SEMICONDUCTORS		
D3501,D3502		DAN202U
CAPACITORS		
C3501-C3504		CKSSYB102K50
RESISTORS		
R3521,R3522,R3525		RAB4C101J
R3524		RAB4C222J
R3519,R3520		RAB4C472J
Other Resistors		RS1/16S###J
OTHERS		
CN3501-CN3504	40P CONNECTOR	AKM1217
CN3506	40P CONNECTOR	AKM1217
CN3505		VKN1310
[DIGITAL DD CON BLOCK]		
CAPACITORS		
C3609		CKSSYF104Z16
RESISTORS		
R3611		RAB4C101J
Other Resistors		RS1/16S###J

HD LED ASSY

SEMICONDUCTORS		
D1671		SML-311UT
D1672		SML512BC4T
COILS AND FILTERS		
⚠F1671-F1673	CHIP SOLID INDUCTOR	QTL1011

HD IR ASSY

SEMICONDUCTORS		
Q1681		2SC4116
D1681		DA204U
CAPACITORS		
C1681		CEVW470M6R3
C1682		CKSRYB103K50
C1683		CKSSYB102K50
C1684		CKSSYF104Z16
RESISTORS		
All Resistors		RS1/16S###J
OTHERS		
CN1681	3P L TYPE PLUG	KM200NA3L
V1681	REMOTE RECEIVER UNIT	RPM7240-H4

HD AUDIO ASSY

OTHERS		
J3901	1P BOARD IN WIRE	ADX3123
[AUDIO AMP BLOCK]		
SEMICONDUCTORS		
IC3754		BR24L02FJ-W
IC3751		LA4625
IC3752		NJM7809FA
IC3753		NJW1183L
Q3751,Q3754,Q3755,Q3757		2SA1576A
Q3756,Q3759		2SC4081
Q3758,Q3760		DTC124EUA
CAPACITORS		
C3797,C3808,C3812,C3814		CEAT1R0M50
C3775,C3777,C3788,C3790,C3791		CEHAT100M50
C3799		CEHAT100M50
C3761,C3764,C3786,C3798		CEHAT101M16
C3766,C3780,C3783-C3785		CEHAT1R0M50
C3762		CEHAT220M50
C3752,C3753,C3819,C3820		CEHAT2R2M50
C3759		CEHAT331M16
C3757		CEHAT471M25
C3755		CEHAT472M25
C3763		CEHATR47M50
C3754,C3805		CFTLA103J50
C3767,C3770,C3772-C3774		CFTLA104J50
C3781,C3782,C3789,C3792-C3795		CFTLA104J50
C3806,C3807,C3813		CFTLA104J50
C3810		CFTLA223J50
C3778		CFTLA334J50
C3758,C3760,C3796		CKSRYB103K50
C3769,C3815		CKSRYB222K50
C3779		CKSRYB822K50
C3816		CKSRYF104Z16
RESISTORS		
R3768-R3770,R3782		RD1/2MMF2R2J
R3752		RD1/2MMF4R7J
Other Resistors		RS1/16S###J

Mark	No.	Description	Part No.
		OTHERS	
	CN3752	12P PH CONNECTOR	AKM1335
	3771	AUDIO HEATSINK	ANH1636
A	CN3751	3P TOP POST (VH)	B3P-VH
	3772-3775	SCREW	VBB30P100FNI
	KN3751	WRAPPING TERMINAL	VNF1084
	KN3752	WRAPPING TERMINAL	VNF1084
		[ST TERMINAL BLOCK]	
		COILS AND FILTERS	
	⚠L3901,L3902	LINE FILTER	ATF1206
		CAPACITORS	
B	⚠C3906,C3908,C3914,C3916		CCSRCH101J50
	C3903,C3911		CKSRYB332K50
	C3904,C3912		CKSRYF473Z50
		RESISTORS	
	R3901-R3904		RD1/2MMF100J
		OTHERS	
	JA3901	SPEAKER TERMINAL	AKE1061

C

POWER SUPPLY UNIT

POWER SUPPLY Unit has no service part.

D

E

F

6. ADJUSTMENT

1. At shipment, the unit is adjusted to its best conditions. Normally, it is not necessary to readjust even if an assembly is replaced. If the adjustment is shifted or if it becomes necessary to readjust because of part replacement, etc., perform the adjustment as described below.
2. Any value changed in Service/Factory mode will be stored in memory as soon as it is changed. Before readjustment, take note of the original values for reference in case you need to restore the original settings.
3. Use a stable AC power supply.

6.1 ADJUSTMENT REQUIRED WHEN THE SET IS REPAIRED OR REPLACED

■ When any of the following assemblies is replaced

POWER SUPPLY Unit	(Clear the history data on the number of power-ons.) Refer to "7.1.7 HOW TO CLEAR HISTORY DATA."
HD DIGITAL Assy	Writing of backup data is required. Refer to the "7.1.6 BACKUP WHEN THE MAIN UNIT IS ADJUSTED. "
50 X DRIVE Assy	No adjustment required
50 Y DRIVE Assy	No adjustment required
Service Panel	Refer to the "6.3 METHOD FOR REPLACING THE SERVICE PANEL ASSY."
Other assemblies	No adjustment required

■ When any part in the following assemblies is replaced

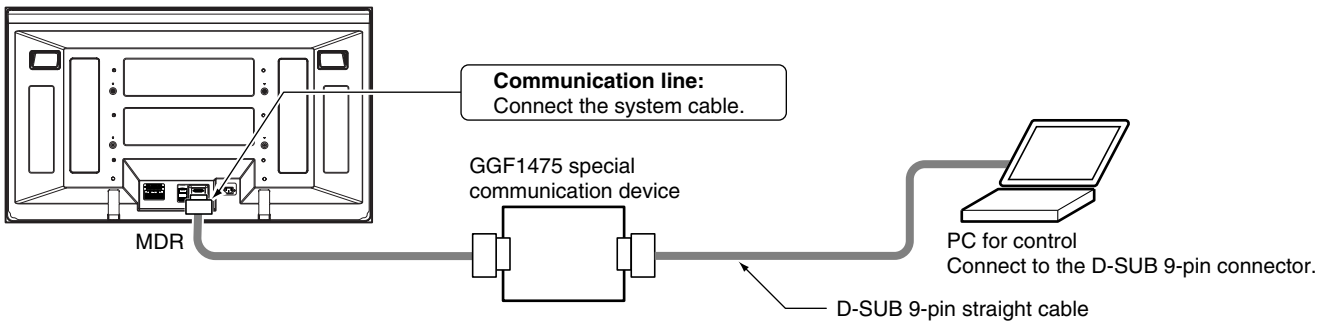
POWER SUPPLY Unit	The assembly must be replaced as a unit, and no part replacement is allowed.
HD DIGITAL Assy	No adjustment required
50 X DRIVE Assy	No adjustment required
50 Y DRIVE Assy	No adjustment required
Other assemblies	No adjustment required

6.2 RS-232C COMMAND

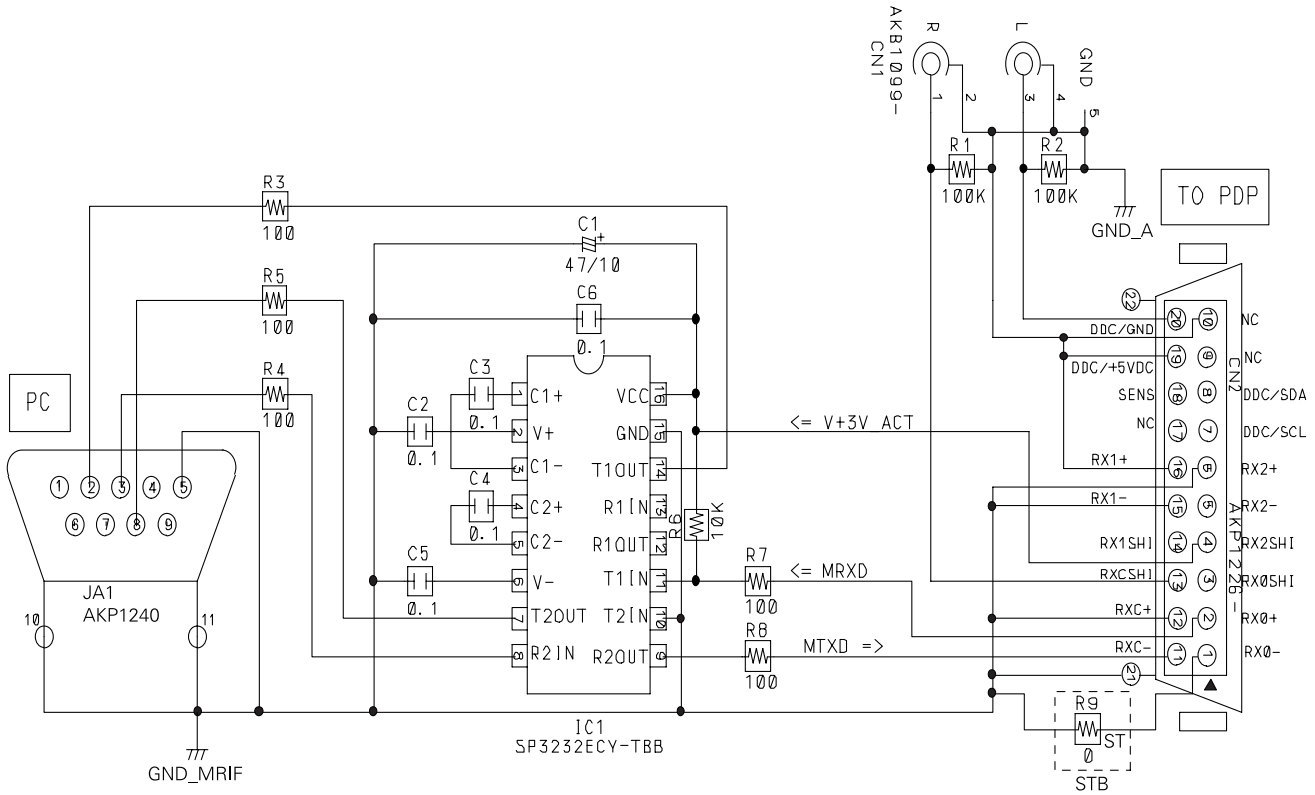
- The panel control items for the PDP-506PE, PU / PDP-436PE, PU systems can be controlled with the RS-232C commands by connecting a PC through the GGF1475 special communication device when the Media Receiver is not connected with the PDP.

Note: The special communication device for the PDP-503P cannot be used with this unit, because the control lines within the MDR cable are different.

1. Connection



• Schematic diagram of the special communication device



2. Command format

■ Communication protocol

Start bit : 1bit
Data : 8bit
Parity : 0 (none)
Stop bit : 1bit
Baud rate : 38400bps

■ Start and stop conditions

STX (start condition): 0x02
ETX (stop condition): 0x03

■ ID setting

No ID setting (corresponding to all ASCII codes)

■ Acknowledgement (ACK)

- Acknowledgement (ACK) will be sent back when the unit returns to Standby mode for the next command after the process of the received command is finished.
- The return data will be a received command in capital letters, but without an ID.

Example of communication: For a command listed on the command list

MR / External PC

STX	ID	Command	ETX
0x02	**	CBU	0x03

Returns from the PDP

STX	Command	ETX
0x02	CBU	0x03

- If a received command is not one listed on the command list, "ERR" (3 characters) will be sent back.

Example of communication: For a command that is not listed on the command list

MR / External PC

STX	ID	Command	ETX
0x02	**	AAA	0x03

Returns from the PDP

STX	Command	ETX
0x02	ERR	0x03

- If the operation of a received command is not possible in a certain status, "XXX" (3 characters) will be sent back.

Example of communication: If an adjustment command that gives an adjustment value out of the adjustable range is sent

MR / External PC

STX	ID	Adjustment Command	Adjustment Value	ETX
0x02	**	VOL	128	0x03

Returns from the PDP

STX	Command	ETX
0x02	XXX	0x03

■ Error process

If an error is generated between STX and ETX, a return signal will not be issued.

3. Definition of various commands

■ Simple-function command

A simple-function command orders an operation that will conclude by itself, and it consists of 3 characters.

Example of communication:

MR / External PC

STX	ID	Command	ETX
0x02	**	CPD	0x03

Returns from the PDP

STX	Command	ETX
0x02	CPD	0x03

■ Adjustment command and adjustment value

An adjustment command is accompanied by an adjustment value and orders a change in the adjustment value, such as for the contrast adjustment.

- Adjustment command + adjustment value => The attached parameter will be the adjustment value.
- The adjustment value to be attached to an adjustment command consists of 3 characters in decimal, in the range of 000 to 999.

Example of communication:

MR / External PC

STX	ID	Adjustment Command	Adjustment Value	ETX
0x02	**	CNT	128	0x03

Returns from the PDP

STX	Adjustment Command	Adjustment Value	ETX
0x02	CNT	128	0x03

- If the adjustment value of the received command is out of the adjustable range, "XXX" will be sent back, and the adjustment value will not be changed.
- If the adjustment value of the received command is the same as the current adjustment value, the adjustment value will be overwritten, and "XXX" will not be sent back.

■ Setup command and setup value

A setup command is accompanied by a setup value and orders a change in the setup value, such as for the mask setup.

- Setup command + setup value => The attached parameter will be the setup value.
- The setup value to be attached to a setup command consists of 3 characters in decimal, in the range of S00 to S99.

Example of communication:

MR / External PC

STX	ID	Adjustment Command	Adjustment Value	ETX
0x02	**	MKS	S02	0x03

Returns from the PDP

STX	Adjustment Command	Adjustment Value	ETX
0x02	MKS	S02	0x03

- If the setup value of the received command is out of the range, "XXX" will be sent back, and the setup value will not be changed.
- If the setup value of the received command is the same as the current setup value, the setup value will be overwritten, and "XXX" will not be sent back.

■ QUEST (acquiring status) command

If a QUEST command is received from the main unit's microcomputer, data for various adjustment values will be read from memory and sent back. The return data consist of the received command as an echo back, return data, and a checksum.

- Return data: A string of characters defined for each QUEST command is converted into ASCII codes and transmitted.
- The configuration and the data length of return data are defined for individual QUEST commands.

Example of communication:

MR / External PC

STX	ID	QST Command	ETX
0x02	**	QS1	0x03

Returns from the PDP

STX	QST Command	Return Data	Checksum	ETX
0x02	QS1	54AHM2**	7B	0x03

- Checksum (CS): A checksum is used for judging if any error exists in the data sent back from the panel. If an error is detected, it is possible to resend the QUEST command from the MR / External PC to try to acquire data again.

4. RS-232C command for module microcomputer

Command Name		Function		Effective only in Factory mode	Remarks
A					
ABL	***	ABL ADJUSTMENT	Adjusting the upper limit of the power	○	
AMT	S00	AUDIO MUTE OFF	Turning off the audio muting		
	S01	AUDIO MUTE ON	Turning on the audio muting		
APW	S00	APL WB FUNCTION:OFF	WB correction interlocked with APL: OFF	○	
	S01	APL WB FUNCTION:ON	WB correction interlocked with APL: ON	○	
B					
BAL	***	BALANCE ADJUSTMENT	Audio balance adjustment		
BAS	***	BASS ADJUSTMENT	Audio bass adjustment		
BCP		BACKUP COPY	Copying the backup data in the EEPROM	○	
C					
CBU		CLEAR BACKUP	Clearing backup data	○	
CHM		CLEAR HOUR METER	Clearing data of the hour meter	○	Used only when the panel is replaced
CPC		CLEAR POWER ON COUNT	Clearing power-on count data	○	Used only when the power unit is replaced
CPD		CLEAR POWER DOWN	Clearing power-down information	○	Used only when the panel is replaced
CPM		CLEAR PLUSE METER	Clearing data of the pulse meter	○	Used only when the panel is replaced
CSD		CLEAR SHUT DOWN	Clearing shutdown information	○	Used only when the panel is replaced
D					
DRV	S00	DRIVE OFF	Main power off		
	S01	DRIVE ON	Main power on		
E					
ESV	S00	POWER CONTROL NORMAL	Setting Power Consumption mode to 4-split normal curve		
	S01	POWER CONTROL MODE1	Setting Power Consumption mode to 2-split normal curve		
	S02	POWER CONTROL MODE2	Setting Power Consumption mode to 2-split power-saving curve		
	S10	POWER CONTROL NORMAL	Setting Power Consumption mode to 4-split normal curve (domestic)		
	S11	POWER CONTROL MODE1	Setting Power Consumption mode to 2-split normal curve (domestic)		
	S12	POWER CONTROL MODE2	Setting Power Consumption mode to 2-split power-saving curve (domestic)		
F					
FAJ		FINISH ADJUSTMENT	Determining the flag of the HD DIGITAL Assy adjustment in "adjustment is completed"	○	
FAN		FACTRY NO		○	
FAY		FACTRY YES	Entering Factory mode		Turning the mask setting off
FCS	S00	FOCUS OFF	Turning the FOCUS function off		
	S01	FOCUS ON	Turning the FOCUS function on		
M					
MKC	S00	MASK COMBINATION OFF	MASK off		
	S01	MASK COMBINATION 01	H ramp (slant 1) M	○	
	S02	MASK COMBINATION 02	H ramp (slant 4) M	○	
	S03	MASK COMBINATION 03	Slanting ramp M	○	
	S04	MASK COMBINATION 04	30 for aging	○	
	S05	MASK COMBINATION 05	05 for aging	○	
	S06	MASK COMBINATION 06	Erasing afterimage 1	○	
	S07	MASK COMBINATION 07	Erasing afterimage 2 (RGB: zigzag, V: reverse)	○	
	S08	MASK COMBINATION 08	White (change in luminance level)	○	
	S09	MASK COMBINATION 09	PEAK SEEK RASTER	○	
MKS	S00	MASK SINGLE OFF	MASK OFF		
	S01	MASK SINGLE 1	H ramp (slant 1)	○	
	S02	MASK SINGLE 2	H ramp (slant 4)	○	
	S03	MASK SINGLE 3	V ramp (slant 1)	○	
	S04	MASK SINGLE 4	Slanting ramp	○	

Command Name		Function		Effective only in Factory mode	Remarks
MKS	S05	MASK SINGLE 5	Window(Hi=870Lo=102)	O	
	S06	MASK SINGLE 6	Window(Hi=1023Lo=102)	O	
	S07	MASK SINGLE 7	Window(Hi=1023)	O	
	S08	MASK SINGLE 8	Window(Hi=1023)4%	O	
	S09	MASK SINGLE 9	Window(Hi=1023)1.25%	O	
	S10	MASK SINGLE 10	Window(1/7LINE)	O	
	S11	MASK SINGLE 11	STRIPE(MGT/GRN)	O	
	S12	MASK SINGLE 12	STRIPE(GRN/MGT)	O	
	S13	MASK SINGLE 13	B & W, checker (1 line)	O	
	S14	MASK SINGLE 14	B & W, checker (2 lines)	O	
	S15	MASK SINGLE 15	B & W, checker (4 lines)	O	
	S16	MASK SINGLE 16	B & W, checker (8 lines)	O	
	S17	MASK SINGLE 17	COLOR BAR	O	
	S18	MASK SINGLE 18	Slanting lines	O	
	S19	MASK SINGLE 19	Red & black, checker (1 line)	O	
	S20	MASK SINGLE 20	Red & black, checker (2 lines)	O	
	S21	MASK SINGLE 21	Red & black, checker (4 ines)	O	
	S22	MASK SINGLE 22	Red & black, checker (8 lines)	O	
	S23	MASK SINGLE 23	RGB zigzag, V reverse	O	
	S24	MASK SINGLE 24	SUS 2000 pulses (black raster)	O	
	S25	MASK SINGLE 25	Window(Hi=870Lo=102) PATTAN3	O	
	S26	MASK SINGLE 26	Window(Hi=1023Lo=102) PATTAN3	O	
	S27	MASK SINGLE 27	Window(Hi=1023) Pattern 3	O	
	S28	MASK SINGLE 28	Window(Hi=1023)4% Pattern 3	O	
	S29	MASK SINGLE 29	Window(Hi=1023)1.25% Pattern 3	O	
	S30	MASK SINGLE 30	Window(1/7LINE) Pattern 3	O	
	S51	MASK SINGLE 51	Raster - White	O	
	S52	MASK SINGLE 52	Raster - Red	O	
	S53	MASK SINGLE 53	Raster - Green	O	
	S54	MASK SINGLE 54	Raster - Blue	O	
	S55	MASK SINGLE 55	Raster - Black	O	
	S56	MASK SINGLE 56	Raster - Cyan	O	
	S57	MASK SINGLE 57	Raster - Magenta	O	
	S58	MASK SINGLE 58	Raster - Yellow	O	
	S59	MASK SINGLE 59	Raster - Cyan 460 :W	O	
	S60	MASK SINGLE 60	Raster - Green 774 :W	O	
	S61	MASK SINGLE 61	Raster - Gray 912 :W	O	
	S62	MASK SINGLE 62	Raster - Yellow egg color: W	O	
	S63	MASK SINGLE 63	Raster - Beige: W	O	
	S64	MASK SINGLE 64	Raster - Sky color: W	O	
	S65	MASK SINGLE 65	Raster - Pale purple: W	O	
	S66	MASK SINGLE 66	Raster - Magenta 54 :W	O	
	S67	MASK SINGLE 67	Raster - Red 588	O	
	S68	MASK SINGLE 68	Red 1023 + α	O	
	S69	MASK SINGLE 69	Green 1023 + α	O	
	S70	MASK SINGLE 70	Blue 1023 + α	O	
	S71	MASK SINGLE 71	Red 588 + α	O	
	S72	MASK SINGLE 72	Green 588 + α	O	
	S73	MASK SINGLE 73	Blue 588 + α	O	

Command Name		Function		Effective only in Factory mode	Remarks
MKS	S74	MASK SINGLE 74	Raster -Gray 512 (reservation)	○	
P					
PAV	S**	PANEL AV MODE	Switching panel functions interlocked with the AV selection		
PBH	***	PANEL BLUE HIGH	Panel white balance adjustment - Blue highlight	○	
PBL	***	PANEL BLUE LOW	Panel white balance adjustment - Blue low light	○	
PDM	S00	PD MUTE OFF	Passing PD signals to the Power SUPPLY Unit => Power-down		
	S01	PD MUTE ON	Not passing PD signals to the Power SUPPLY Unit => No power-down		
PFN		FACTORY NO	Factory mode: off	○	
PFS		PANEL FINAL SETUP	Setup at shipment	○	
PFY		FACTORY YES	Factory mode: on		
PGH	***	PANEL GREEN HIGH	Panel white balance adjustment - Green highlight	○	
PGL	***	PANEL GREEN LOW	Panel white balance adjustment - Green low light	○	
PGM	S**	PANEL GAMMA	Setting of the gamma table		
PMT	S00	MUTE OFF	Canceling panel muting		
	S01	MUTE ON	Panel muting		
POF		POWER OFF	Power off		
PON		POWER ON	Power on		
PPT	S00	PANEL PROTECT OFF	Panel protection: off	○	
	S01	PANEL PROTECT ON	Panel protection: on	○	
PUC	S00	PUER CINEMA:OFF	Pure cinema: off		
	S01	PUER CINEMA:STD	Pure cinema: standard		
	S02	PUER CINEMA:ADV	Pure cinema: advanced		
Q					
QAJ		QUEST ADJUSTMENT	Acquiring various adjustment values		
QIP		QUEST PANEL INFORMATION	Acquiring various input signal data		
QPD		QUEST POWER-DOWN	Acquiring logs of power-down points		
QPM		QUEST PULSE METER	Acquiring data of the pulse meter		
QPW		QUEST PANEL WHITE BALANCE	Acquiring panel white balance adjustment values		
QS1		QUEST STATUS 1	Acquiring data on the unit, such as the version of the program		
QS2		QUEST STATUS 2	Acquiring data on the status of the unit, such as temperature		
QSD		QUEST SHUT DOWN	Acquiring data on shutdown		
QSI		QUEST SIGNAL INFORMATION	Acquiring data related with signals		
R					
RBL	S**	PANEL REVISE BLUE LEVEL	Setting of blue level for panel degradation correction	○	
RGL	S**	PANEL REVISE GREEN LEVEL	Setting of green level for panel degradation correction	○	
RHI	***	RED HIGH	User white balance - Red highlight		
RLW	***	RED LOW	User white balance - Red low light		
RRL	S**	PANEL REVISE RED LEVEL	Setting of red level for panel degradation correction	○	
RSW	***	XY-RST-W ADJ	Adjustment of the width of XY reset pulse	○	
S					
SDM	S00	SD MUTE OFF	Shutdown enabled		
	S01	SD MUTE ON	Shutdown prohibited		
SFR	S01	SUS FREQUENCY MODE1	Measures against AM radio noise - Pattern 1	○	
	S02	SUS FREQUENCY MODE2	Measures against AM radio noise - Pattern 2	○	
	S03	SUS FREQUENCY MODE3	Measures against AM radio noise - Pattern 3	○	
	S04	SUS FREQUENCY MODE4	Measures against AM radio noise - Pattern 4	○	
	S05	SUS FREQUENCY MODE5	Measures against AM radio noise - Pattern 5	○	
	S06	SUS FREQUENCY MODE6	Measures against AM radio noise - Pattern 6	○	
	S07	SUS FREQUENCY MODE7	Measures against AM radio noise - Pattern 7	○	

Command Name		Function		Effective only in Factory mode	Remarks
SFR	S08	SUS FREQUENCY MODE8	Measures against AM radio noise - Pattern 8	○	
SMM	S**	SIDE MASK MODE	Setting of the effective area during streaking correction	○	
SN0	***	SERIAL NO 0	Setting of the serial No. 0 (panel)	○	
SN1	***	SERIAL NO 1	Setting of the serial No. 1 (panel)	○	
SN2	***	SERIAL NO 2	Setting of the serial No. 2 (panel)	○	
SN3	***	SERIAL NO 3	Setting of the serial No. 3 (panel)	○	
SN4	***	SERIAL NO 4	Setting of the serial No. 4 (panel)	○	
SRS	S00	SRS OFF	SRS function: off		
	S01	SRS ON	SRS function: on		
SYS	S00	SYSTEM CABLE NO	Prohibiting monitoring of cable disconnection detection		
	S01	SYSTEM CABLE YES	Permitting monitoring of cable disconnection detection		
T					
TBS	S00	TRUBASS OFF	TruBass function: off		
	S01	TRUBASS ON	TruBass function: on		
TRE	***	TREBLE ADJUSTMENT	Audio treble adjustment		
U					
UAJ		UN-ADJUSTMENT	Determining the flag for the HD DIGITAL Assy adjustment in "not adjusted"	○	
V					
VFQ	S01	FREQENCY VIDEO 48Hz	Setting the frequency in Mask mode to VD-48 Hz	○	
	S02	FREQENCY VIDEO 50Hz	Setting the frequency in Mask mode to VD-50 Hz	○	
	S03	FREQENCY VIDEO 60Hz	Setting the frequency in Mask mode to VD-60 Hz	○	
	S05	FREQENCY THEATER 72Hz	Setting the frequency in Mask mode to VD-72 Hz	○	
	S06	FREQENCY 75Hz	Setting the frequency in Mask mode to VD-75 Hz	○	
	S13	FREQENCY PC 60Hz	Setting the frequency in Mask mode to PC-60 Hz	○	
	S14	FREQENCY PC 70Hz	Setting the frequency in Mask mode to PC-70 Hz	○	
	S22	FREQENCY VIDEO 50Hz NONSTD	Setting the frequency in Mask mode to VD-50 Hz (nonstandard)	○	
	S23	FREQENCY VIDEO 60Hz NONSTD	Setting the frequency in Mask mode to VD-60 Hz (nonstandard)	○	
	S25	FREQENCY VIDEO 72Hz NONSTD	Setting the frequency in Mask mode to VD-72 Hz (nonstandard)	○	
	S26	FREQENCY VIDEO 75Hz NONSTD	Setting the frequency in Mask mode to VD-75 Hz (nonstandard)	○	
VOF	***	Vofs ADJUSTMENT	Adjustment of the reference value of Vofs voltage	○	
VOL	***	VOLUME	Audio volume adjustment		
VRP	***	Vrp ADJUSTMENT	Adjustment of the reference value of Vrst-p voltage	○	
VSU	***	Vsus ADJUSTMENT	Adjustment of the reference value of Vsus voltage	○	
W					
WBI	S00	WB INITIALIZE NO	Panel WB standard output mode: off	○	
WBI	S01	WB INITIALIZE YES	Panel WB standard output mode: on	○	
X					
XSB	***	X-SUS-B ADJ	X-SUS-B ADJ	○	
Y					
YSB	***	Y-SUS-B ADJ	Y-SUS-B ADJ	○	
YTG	***	Y-SUSTAIL ADJ	Y-SUSTAIL ADJ	○	
YTW	***	Y-SUSTAIL W AJD	Y-SUSTAIL W AJD	○	

5. QUEST commands (for acquiring status)

With a QUEST command, data on STBY/ON, PD, and SD can be obtained while the unit is on.

■ Acquisition of panel statuses • • • [QS1]

The command QS1 is for acquiring data necessary for authentication of both the main unit's microcomputer and the module's microcomputer.

Command Format	Effective Operation Modes	Function	Remarks
[QS1]	All operations	To acquire data on product status	Return data: 3 (ECO)+43(DATA)+2(CS)=48Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QS1
1	Resolution/size	1Byte	5
2	Generation	1Byte	6
3	Destination	1Byte	*
4	Grade	1Byte	*
5	Product type	1Byte	S
6	MDUcom-Boot	3Byte	01A
7	MDUcom-PRG	8Byte	001SM "space × 3"
8	SEQUENCE PROCESSOR-Boot	3Byte	01A
9	SEQUENCE PROCESSOR-Boot	8Byte	001AM "space × 3"
10	SQ-VIDEO(43/42)	4Byte	001X
11	SQ-PC(43/42)	4Byte	001X
12	SQ-VIDEO(50/61)	4Byte	001W
13	SQ-PC(50/61)	4Byte	001W
CS		2Byte	7B

● Resolution/size	
4	1024*768-43
5	1280*768-50

● Generation	
6	G6

● Destination	
*	Common

● Grade	
*	Common

● MDUcom/SEQUENCE PROCESSOR-Boot • • • 3Byte		
1st character		Representing the boot version in 2-digit decimal
2nd character		
3rd character	A	When the boot version is common to 43/50
	X	When the boot version is only for 43
	W	When the boot version is only for 50

● Product type	
S	System model

● MDUcom/SEQUENCE PROCESSOR-PRG • • • 8Byte		
1st character	–	For a mass-production product
2nd character		For representing the version in 2-digit decimal
3rd character		
4th character	A	When the program is common to 43/50 (for SEQUENCE PROCESSOR)
	S	When the program is only for another unit (for MDUcom)
5th character	M	Fixed
6th character		Reservation
7th character		Reservation
8th character		Reservation

● SEQUENCE-Data • • • 8Byte		
1st - 3rd characters	Num	For representing the version in 3-digit decimal
4th character	W	When the sequence data are only for 50
	X	When the sequence data are only for 43

• For the version indication, the bytes reserved for special use must be replaced with spaces if they are not used.

■ Acquisition of panel operation data • • • [QS2]

The command QS2 is for acquiring data on the panel's operations. Basically, this command is used for the module's microcomputer to inform the main unit's microcomputer of changes in panel operation.

Command Format	Effective Operation Modes	Function	Remarks
[QS2]	All operations	To acquire data on operations of the panel	Return data: 3 (ECO)+23(DATA)+2(CS)=28Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QS2
1	Notification of mode shifting to STB	1Byte	1
2	Flag for adjustment of the main unit	1Byte	0
3	Flag for adjustment-data backup	1Byte	0
4	"1st PD" data	1Byte	0
5	"2nd PD" data	1Byte	0
6	Reservation	3Byte	***
7	Temperature data (TEMP 1)	3Byte	128
8	SD main data	1Byte	0
9	SD subdata	1Byte	0
10	Operation status induced by SD	1Byte	0
11	Data from the hour meter	8Byte	00000259
12	MASK indication	1Byte	0
CS		2Byte	4A

Note : "00000259" of "Data from the hour meter" means 2 hours 59 minuts.

● Notification of mode shifting to Standby	
0	Entering Standby mode failed
1	Entering Standby mode succeeded

● Adjustment of the main unit	
0	Adjustment completed
1	Adjustment not completed

● Adjustment-data backup	
0	With backup data
1	No data

● PD data	
0	No PD data
1	Not used
2	POWER
3	SCAN
4	SCN-5V
5	Not used
6	Y-DCDC
7	Y-SUS
8	ADRS
9	X-DRV
A	X-DCDC
B	X-SUS
C	Not used
D	SQ-IC
E	Not used
F	Specification inability

● SD main data	
0	No SD
1	SQ-IC
2	MDU-IIC
3	RST2
4	Panel having high temperature
5	Short-circuited speaker

● SD subdata (IIC)	
0	No SD subdata
1	EEPROM
2	BACKUP
3	DAC
4	VOL IC
5	DVI

● Operation status induced by SD	
0	Normal
1	Relay-off completed
2	During warning indication

● MASK indication	
0	MASK-OFF
1	MASK-ON

■ Acquisition of other data on the panel • • • [QIP]

The command QIP is for acquiring data other than those available with QS1 (data necessary before turning the power on) and QS2 (data to inform of operational status change).

Command Format	Effective Operation Modes	Function	Remarks
[QIP]	All operations	To acquire data on operations of the panel	Return data: 3 (ECO)+39(DATA)+2(CS)=44Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QIP
1	SERIAL	15Byte	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _
2	HOUR METER	8Byte	00000000
3	BACKUP HR MTR	8Byte	00000000
4	PON COUNTER	8Byte	00000000
CS		2Byte	94

Note : The real product serial number is displayed in "SERIAL".

■ Acquisition of panel adjustment data (common data) • • • [QAJ]

The command QAJ is for acquiring data on the panel's factory-preset items that are common to the main unit and that share the same memory.

Command Format	Effective Operation Modes	Function	Remarks
[QAJ]	All operations	To acquire data on operations of the panel	Return data: 3 (ECO)+27(DATA)+2(CS)=32Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QAJ
1	V-SUS adjustment value	3Byte	128
2	V-OFT adjustment value	3Byte	128
3	V-RST-P adjustment value	3Byte	128
4	XSB adjustment value	3Byte	128
5	YSB adjustment value	3Byte	128
6	YTG adjustment value	3Byte	128
7	YTW adjustment value	3Byte	128
8	RSW adjustment value	3Byte	128
9	R-RIVISE setting value	1Byte	0
10	G-RIVISE setting value	1Byte	0
11	B-RIVISE setting value	1Byte	0
CS		2Byte	B7

■ Acquisition of ABL/WB adjustment data • • • [QPW]

The command QPW is for acquiring data on the panel's factory-preset items whose memory tables are changed in sequence.

Command Format	Effective Operation Modes	Function	Remarks
[QPW]	All operations	To acquire data on operations of the panel	Return data: 3 (ECO)+35(DATA)+2(CS)=40Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QPW
1	Drive sequence	3Byte	60V
2	Standard/nonstandard	1Byte	S
3	Type of ABL/WB tables	2Byte	T2
4	ABL adjustment value	3Byte	128
5	R-HIGH adjustment value	3Byte	256
6	G-HIGH adjustment value	3Byte	256
7	B-HIGH adjustment value	3Byte	256
8	R-LOW adjustment value	3Byte	512
9	G-LOW adjustment value	3Byte	512
10	B-LOW adjustment value	3Byte	512
11	Gamma setting	1Byte	A
12	Streaking correction	1Byte	1
13	Peripheral luminance correction	1Byte	0
14	Reservation	1Byte	*
15	WB interlocked with APL	1Byte	0
16	Transition of protective operations	1Byte	0
17	Reservation	2Byte	**
CS		2Byte	37

● Drive sequence

48V	Video48 Hz
50V	Video50 Hz
60V	Video60 Hz
72V	Video72 Hz
75V	Video75 Hz
60P	PC60Hz
70P	PC70Hz

● Standard/ nonstandard

S	Standard
N	Nonstandard

● Gamma setting

n	0 to F

● Setting for Items 12 and 15

0	OFF
1	ON

● Peripheral luminance correction

0	OFF
2	ON (interlocked with APL)

● Transition of brightness by protective operations

0	Upper limit state for brightness
1	Brightness being reduced
2	Lower limit state for brightness
3	Brightness being increased

● Type of ABL/WB tables

Tn	n: 1 to 4

■ Acquisition of parameters • • • [QPM]

The command QPM is for acquiring the accumulated number of pulses for each of 5 blocks from the EEPROM.

Command Format	Effective Operation Modes	Function	Remarks
[QPM]	All operations	To acquire data on operations of the panel	Return data: 3 (ECO)+40(DATA)+2(CS)=45Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QPM
1	Pulse meter B 1	8Byte	00000000
2	Pulse meter B 2	8Byte	00000000
3	Pulse meter B 3	8Byte	00000000
4	Pulse meter B 4	8Byte	00000000
5	Pulse meter B 5	8Byte	00000000
CS		2Byte	E7

• The output data on the accumulated number of pulses for each block are calculated in the following way: the high-order 4 bytes of the accumulated number of pulses for each block are converted into a decimal number, and the high-order 8 digits are transmitted. The unit of each block is M_pulse (mega).

■ Acquisition of PD logs • • • [QPD]

The command QPD is for acquiring data from the 8 latest power-down (PD) logs.

Command Format	Effective Operation Modes	Function	Remarks
[QPD]	All operations	To acquire data on the power-down logs	Return data: 3 (ECO)+80(DATA)+2(CS)=85Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QPD
1	Latest "1st PD" data	1byte	A
2	Latest "2nd PD" data	1byte	2
3	Data from the hour meter for the latest PD	8byte	00010020
4	Second latest "1st PD" data	1byte	E
5	Second latest "2nd PD" data	1byte	9
6	Data from the hour meter for the second latest PD	8byte	00008523
7	Third latest "1st PD" data	1byte	4
8	Third latest "2nd PD" data	1byte	3
9	Data from the hour meter for the third latest PD	8byte	00004335
10	Fourth latest "1st PD" data	1byte	2
11	Fourth latest "2nd PD" data	1byte	0
12	Data from the hour meter for the fourth latest PD	8byte	00000945
13	Fifth latest "1st PD" data	1byte	4
14	Fifth latest "2nd PD" data	1byte	0
15	Data from the hour meter for the fifth latest PD	8byte	00000715
16	Sixth latest "1st PD" data	1byte	A
17	Sixth latest "2nd PD" data	1byte	2
18	Data from the hour meter for the sixth latest PD	8byte	00000552
19	Seventh latest "1st PD" data	1byte	A
20	Seventh latest "2nd PD" data	1byte	0
21	Data from the hour meter for the seventh latest PD	8byte	00000213
22	Eighth latest "1st PD" data	1byte	D
23	Eighth latest "2nd PD" data	1byte	0
24	Data from the hour meter for the eighth latest PD	8byte	000001A7
CS		2Byte	27

● PD data	
0	No PD
1	Not used
2	P-POWER
3	SCAN
4	SCN-5V
5	Not used
6	Y-DCDC
7	Y-SUS
8	Address
9	X-DRIVE
A	X-DCDC
B	X-SUS
C	DIG-DCDC
D	QS (driving stopped)
E	Not used
F	Specification inability

■ Acquisition of SD logs • • • [QSD]

The command QSD is for acquiring the data from the 8 latest shutdown (SD) logs.

Command Format	Effective Operation Modes	Function	Remarks
[QSD]	All operations	To acquire data on the shutdown logs	Return data: 3 (ECO)+80(DATA)+2(CS)=85Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QSD
1	Latest SD data	1byte	1
2	Latest SD subcategory data	1byte	0
3	Data from the hour meter for the latest SD	8byte	00752013
4	Second latest SD data	1byte	5
5	Second latest SD subcategory data	1byte	0
6	Data from the hour meter for the second latest SD	8byte	00495204
7	Third latest SD data	1byte	2
8	Third latest SD subcategory data	1byte	3
9	Data from the hour meter for the third latest SD	8byte	00100355
10	Fourth latest SD data	1byte	2
11	Fourth latest SD subcategory data	1byte	5
12	Data from the hour meter for the fourth latest SD	8byte	00075620
13	Fifth latest SD data	1byte	1
14	Fifth latest SD subcategory data	1byte	0
15	Data from the hour meter for the fifth latest SD	8byte	00000852
16	Sixth latest SD data	1byte	2
17	Sixth latest SD subcategory data	1byte	5
18	Data from the hour meter for the sixth latest SD	8byte	000000451
19	Seventh latest SD data	1byte	0
20	Seventh latest SD subcategory data	1byte	0
21	Data from the hour meter for the seventh latest SD	8byte	00000000
22	Eighth latest SD data	1byte	0
23	Eighth latest SD subcategory data	1byte	0
24	Data from the hour meter for the eighth latest SD	8byte	00000000
CS		2Byte	7D

● SD data	
0	No SD
1	SQ-IC
2	MDU-IIC
3	RST2
4	Panel having high temperature
5	Short-circuited speaker

● SD subcategory	
0	No SD subcategory
1	EEPROM
2	BACKUP
3	DAC
4	VOL-IC
5	DVI
6	Not used

■ Acquisition of input signal data • • • [QSI]

The command QSI is for acquiring all data on input video signals.

Command Format	Effective Operation Modes	Function	Remarks
[QSI]	All operations	To acquire all data on input video signals	Return data: 3 (ECO)+66(DATA)+2(CS)=71Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QSI
1	Type of drive sequence	3byte	60V
2	Standard/nonstandard	1byte	S
3	Type of ABL/WB tables	2byte	T1
4	Total value of PCN	4byte	0256
5	Total value of PRH	4byte	0256
6	Total value of PGH	4byte	0256
7	Total value of PBH	4byte	0256
8	Total value of PBR	4byte	0512
9	Total value of PRL	4byte	0512
10	Total value of PGL	4byte	0512
11	Total value of PBL	4byte	0512
12	Reservation	2byte	**
13	Detection of existence of H	1byte	Y
14	Detection of V frequency	4byte	6002
15	Reservation	4byte	****
16	Obtained APL data	4byte	1023
17	Number of SUS pulses	4byte	0457
18	Result of detection of still picture	1byte	1
19	Result of detection of cracking in the panel	1byte	1
20	Result of detection for scanning protection	1byte	1
21	Result of detection for external protection	1byte	1
22	Transition of protection operation	1byte	0
23	Reservation	4byte	****
CS		2Byte	27

● Detection of existence of H	
N	No H
Y	H detected

● Transition of brightness by protection operation	
0	Upper limit state for brightness
1	Brightness being reduced
2	Lower limit state for brightness
3	Brightness being increased

- If data for an item cannot be obtained during Standby mode, the return data for that item will be "*."
- The types of data for Items 1-3 in the table (drive sequence, standard/nonstandard, and type of ABL/WB tables) are the same as with the command QPW.
- Each total value for Items 4-11 represents that of panel WB, user WB, and degradation correction, and the actual data being sent to the ASTRA are output.
- Detection of V frequency: The V signal input to the panel is measured in the range of 30.51 to 99.99 Hz. The measured value is multiplied by 100 and then output.
- Number of SUS pulses : The number is calculated from data from APL and the drive sequence. The output value must be between 0174 and 2752.
- APL value: The APL value for the input video signal (or mask indication) will be output in the range of 0000 to 1023.

■ Setting for Factory mode permission/prohibition • • • [FAY/FAN] [PFY/PFN]

The commands FAY/FAN and PFY/PFN are for prohibiting/permitting panel-adjustment commands during normal operation and are to be used to avoid accidental change of panel adjustment values.

Command Format	Operation		Remarks
	Effective Operation Modes	Control (by the microcomputer itself)	
[FAY]	Normal operation mode while the power is on	Adjustment mode: ON	Mask indications will be forcibly turned off.
[PFY]			With a PFY command, the mask does not change.
[FAN]	During FAY	Adjustment mode: OFF	
[PFN]			

• Commands that are effective during normal operation will also be effective during FAY (PFY) mode.

Note:

• The functions shown below will be forcibly switched when Mask ON/OFF is switched. (Even if the panel is off, changed settings will be retained.)
While the status of Mask ON or OFF is maintained, if settings for the individual functions shown in ① and ② are changed, those settings are retained (even if the drive frequency is changed).

① Functions related to picture quality

Function	Setting while Mask is ON	Setting while Mask is OFF	Remarks
Peripheral luminance correction	OFF	ON	
WB correction interlocked with APL	OFF	ON	
Streaking correction	OFF	ON	

② Functions related to panel protection

Function	Setting while Mask is ON	Setting while Mask is OFF	Remarks
Detection of still picture	OFF	ON	
Detection of cracking in the panel	OFF	ON	
Scanning protection	OFF	ON	

• Depending on the type of mask displayed, phosphor burn of the panel may occur. As the panel-protection function is forcibly turned off with this model, care must be taken when color-bar signals are to be displayed for an extended period.

■ Backup function for adjustment values for the main unit • • • [FAJ/UAJ/CBU/BCP]

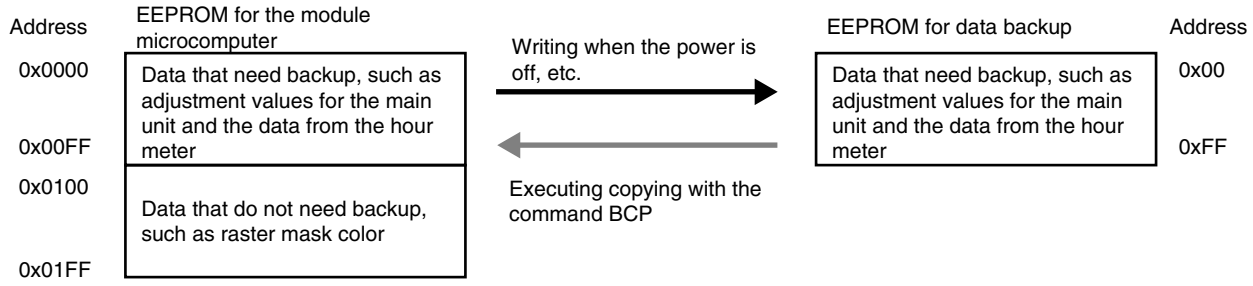
When the HD DIGITAL Assy is to be replaced, adjustment values can be copied from the backup EEPROM to the EEPROM of the Assy for service.

Command Format	Operation			Remarks
	Effective Operation Modes	Control (by the microcomputer itself)		
[FAJ]	During FAY	To make the flag setting that indicating that adjustment of the main unit has been completed	Writing 00 to the 4-kbyte ROM and copying to the 2-kbyte ROM	This takes at least 350 ms.
[UAJ]		To make the flag setting that indicating that adjustment of the main unit has not been completed	Writing F0 to the 4-kbyte ROM	
[CBU]		To make the flag setting that indicating that backup data have not been copied	Writing F0 to the 2-kbyte ROM	The backup ROM is initialized.
[BCP]		To make the flag setting that indicating that backup data have been copied	Copying backup data	

When the flag indicating that the line adjustments (SUS waveform, voltage margin, and panel WB) for the main unit have been completed is set to on, data stored from Addresses 0x0000 to 0X00FF in the digital EEPROM are copied to the same addresses of the backup EEPROM. Copying will be executed immediately before the relay of normal operation is off.

- When the command BCP is received while a warning indicating that backup copying has not been completed is displayed (conditions: main EEPROM = not adjusted, and backup EEPROM = adjusted), backed-up data will be copied to the main EEPROM, and various adjustment values related to Factory mode will be readjusted. Then LED warning indication will be shut off, and normal LED indication will be restored.

- If the backup EEPROM has not been adjusted when the command BCP is received (0x0063 is not written to all three addresses of the key data), copying of the backup data is not possible, and "XXX" is returned.



Note:
- When the command FAJ, UAJ, or CBU is executed, only high-order one-byte (0x00 or 0xF0) key data will be written to the EEPROM, and lower-order one-byte (0x63) data will not be changed.
- It takes at least 350 ms from reception of the command FAJ until an echo is sent back, because data are copied to the backup EEPROM.

■ Factory presetting • • • [PFS]

Command Format	Operation			Remarks
	Effective Operation Modes	Control (by the microcomputer itself)		
[PFS]	During FAY	Initialized to factory-preset values		

- When this command is executed, the values not stored in the EEPROM are initialized, mask indication is set to OFF, control of the power for line aging is set to OFF, and detection of the system cable is set to ON.

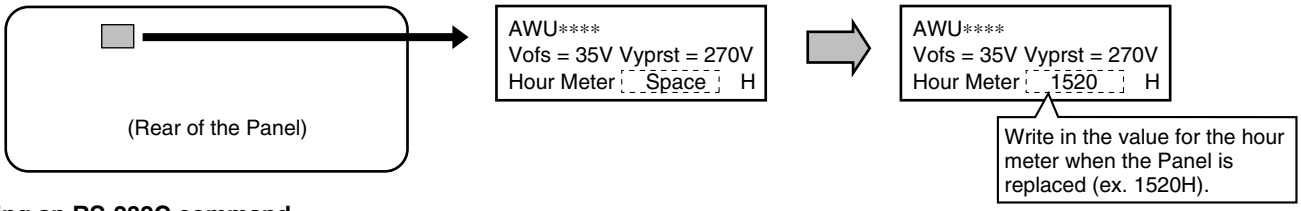
6.3 METHOD FOR REPLACING THE SERVICE PANEL ASSY

When the Panel Assy is replaced with one for service, the following adjustments are required:

■ Adjustments of Vofs voltage and Vyprst voltage

Enter the reference adjustment values for the Vofs voltage and Vyprst voltage that are written on the label attached to the panel for service.

Note: Enter the values, using an RS-232C command or the Factory Menu.



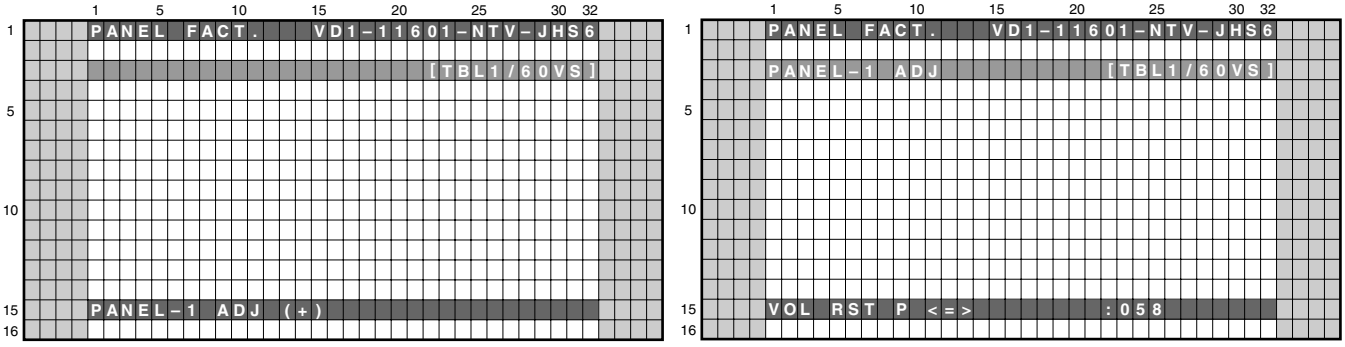
Using an RS-232C command

Enter a "PFY" command with Factory mode ON.

Convert the adjustment voltage values written on the label attached at the rear of the Panel to an input command, referring to the conversion chart. (See the next page.)

- Reference adjustment of the Vofs voltage: Ex. "Vofs = 35" → (Check the conversion chart.) Enter "VOF112."
- Reference adjustment of the Vyprst voltage: Ex. 50-inch "Vyprst = 270 V" → (Check the conversion chart.) Enter "VRP055." (Note that the conversion charts for 50-inch and 43-inch Panels are different.)

Using the Factory Menu



Select the main item "PANEL FACT." by pressing the MUTE key then enter Panel Factory mode by pressing the SET key.
Using the ▲/▼ keys, select "PANEL-1 ADJ" then press the SET key to enter the next lower nested layer.
Select "VOL-OFFSET" or "VOL RST P" then enter a command value converted from the voltage value, using the ◄/► keys.

■ Clearing data on various histories of the Panel, such as those on the hour meter

- It is necessary to clear the data on the hour meter, etc. to match them to the actual driving hours of the Panel.
- It is also necessary to clear the data on SD and PD, because the accumulated power-on time when a shutdown or power-down occurred is recorded.

Note: Clear the values, using an RS-232C command or the Factory Menu.
There are two types of hour meters. Do not take the MR hour meter for the hour meter.

Using an RS-232C command

To acquire the accumulated power-on time of the product itself, use the "GS2" RS-232C command.

1 To clear the data on the hour meter (for the Panel) : CHM
2 To clear the data on the pulse meter : CPM
3 To clear the data on the SD history : CSD
4 To clear the data on the PD history : CPD

Using the Factory Menu

See "7.1.7 HOW TO CLEAR HISTORY DATA."

■ Conversion charts for electronic VRs: Conversion chart for the Vofs

Conversion chart for the Vofs (Commands vs. Common voltage values for the 50-inch and 43-inch models)

Command	Voltage value [V] for common sizes	Command	Voltage value [V] for common sizes	Command	Voltage value [V] for common sizes	Command	Voltage value [V] for common sizes	Command	Voltage value [V] for common sizes
VOF000	14.09	VOF056	24.55	VOF112	35.01	VOF168	45.47	VOF224	55.93
VOF001	14.28	VOF057	24.74	VOF113	35.20	VOF169	45.66	VOF225	56.12
VOF002	14.46	VOF058	24.92	VOF114	35.38	VOF170	45.85	VOF226	56.31
VOF003	14.65	VOF059	25.11	VOF115	35.57	VOF171	46.03	VOF227	56.49
VOF004	14.84	VOF060	25.30	VOF116	35.76	VOF172	46.22	VOF228	56.68
VOF005	15.02	VOF061	25.48	VOF117	35.95	VOF173	46.41	VOF229	56.87
VOF006	15.21	VOF062	25.67	VOF118	36.13	VOF174	46.59	VOF230	57.05
VOF007	15.40	VOF063	25.86	VOF119	36.32	VOF175	46.78	VOF231	57.24
VOF008	15.58	VOF064	26.04	VOF120	36.51	VOF176	46.97	VOF232	57.43
VOF009	15.77	VOF065	26.23	VOF121	36.69	VOF177	47.15	VOF233	57.61
VOF010	15.96	VOF066	26.42	VOF122	36.88	VOF178	47.34	VOF234	57.80
VOF011	16.14	VOF067	26.61	VOF123	37.07	VOF179	47.53	VOF235	57.99
VOF012	16.33	VOF068	26.79	VOF124	37.25	VOF180	47.71	VOF236	58.17
VOF013	16.52	VOF069	26.98	VOF125	37.44	VOF181	47.90	VOF237	58.36
VOF014	16.70	VOF070	27.17	VOF126	37.63	VOF182	48.09	VOF238	58.55
VOF015	16.89	VOF071	27.35	VOF127	37.81	VOF183	48.27	VOF239	58.73
VOF016	17.08	VOF072	27.54	VOF128	38.00	VOF184	48.46	VOF240	58.92
VOF017	17.27	VOF073	27.73	VOF129	38.19	VOF185	48.65	VOF241	59.11
VOF018	17.45	VOF074	27.91	VOF130	38.37	VOF186	48.83	VOF242	59.30
VOF019	17.64	VOF075	28.10	VOF131	38.56	VOF187	49.02	VOF243	59.48
VOF020	17.83	VOF076	28.29	VOF132	38.75	VOF188	49.21	VOF244	59.67
VOF021	18.01	VOF077	28.47	VOF133	38.93	VOF189	49.39	VOF245	59.86
VOF022	18.20	VOF078	28.66	VOF134	39.12	VOF190	49.58	VOF246	60.04
VOF023	18.39	VOF079	28.85	VOF135	39.31	VOF191	49.77	VOF247	60.23
VOF024	18.57	VOF080	29.03	VOF136	39.49	VOF192	49.96	VOF248	60.42
VOF025	18.76	VOF081	29.22	VOF137	39.68	VOF193	50.14	VOF249	60.60
VOF026	18.95	VOF082	29.41	VOF138	39.87	VOF194	50.33	VOF250	60.79
VOF027	19.13	VOF083	29.59	VOF139	40.05	VOF195	50.52	VOF251	60.98
VOF028	19.32	VOF084	29.78	VOF140	40.24	VOF196	50.70	VOF252	61.16
VOF029	19.51	VOF085	29.97	VOF141	40.43	VOF197	50.89	VOF253	61.35
VOF030	19.69	VOF086	30.15	VOF142	40.62	VOF198	51.08	VOF254	61.54
VOF031	19.88	VOF087	30.34	VOF143	40.80	VOF199	51.26	VOF255	61.72
VOF032	20.07	VOF088	30.53	VOF144	40.99	VOF200	51.45		
VOF033	20.25	VOF089	30.71	VOF145	41.18	VOF201	51.64		
VOF034	20.44	VOF090	30.90	VOF146	41.36	VOF202	51.82		
VOF035	20.63	VOF091	31.09	VOF147	41.55	VOF203	52.01		
VOF036	20.81	VOF092	31.28	VOF148	41.74	VOF204	52.20		
VOF037	21.00	VOF093	31.46	VOF149	41.92	VOF205	52.38		
VOF038	21.19	VOF094	31.65	VOF150	42.11	VOF206	52.57		
VOF039	21.37	VOF095	31.84	VOF151	42.30	VOF207	52.76		
VOF040	21.56	VOF096	32.02	VOF152	42.48	VOF208	52.94		
VOF041	21.75	VOF097	32.21	VOF153	42.67	VOF209	53.13		
VOF042	21.94	VOF098	32.40	VOF154	42.86	VOF210	53.32		
VOF043	22.12	VOF099	32.58	VOF155	43.04	VOF211	53.50		
VOF044	22.31	VOF100	32.77	VOF156	43.23	VOF212	53.69		
VOF045	22.50	VOF101	32.96	VOF157	43.42	VOF213	53.88		
VOF046	22.68	VOF102	33.14	VOF158	43.60	VOF214	54.06		
VOF047	22.87	VOF103	33.33	VOF159	43.79	VOF215	54.25		
VOF048	23.06	VOF104	33.52	VOF160	43.98	VOF216	54.44		
VOF049	23.24	VOF105	33.70	VOF161	44.16	VOF217	54.63		
VOF050	23.43	VOF106	33.89	VOF162	44.35	VOF218	54.81		
VOF051	23.62	VOF107	34.08	VOF163	44.54	VOF219	55.00		
VOF052	23.80	VOF108	34.26	VOF164	44.72	VOF220	55.19		
VOF053	23.99	VOF109	34.45	VOF165	44.91	VOF221	55.37		
VOF054	24.18	VOF110	34.64	VOF166	45.10	VOF222	55.56		
VOF055	24.36	VOF111	34.82	VOF167	45.29	VOF223	55.75		

■ Conversion charts for electronic VRs: Conversion chart for the Vyprst (1/2)

Conversion chart for the Vyprst (Commands vs. Voltage values for the 50-inch and 43-inch models)

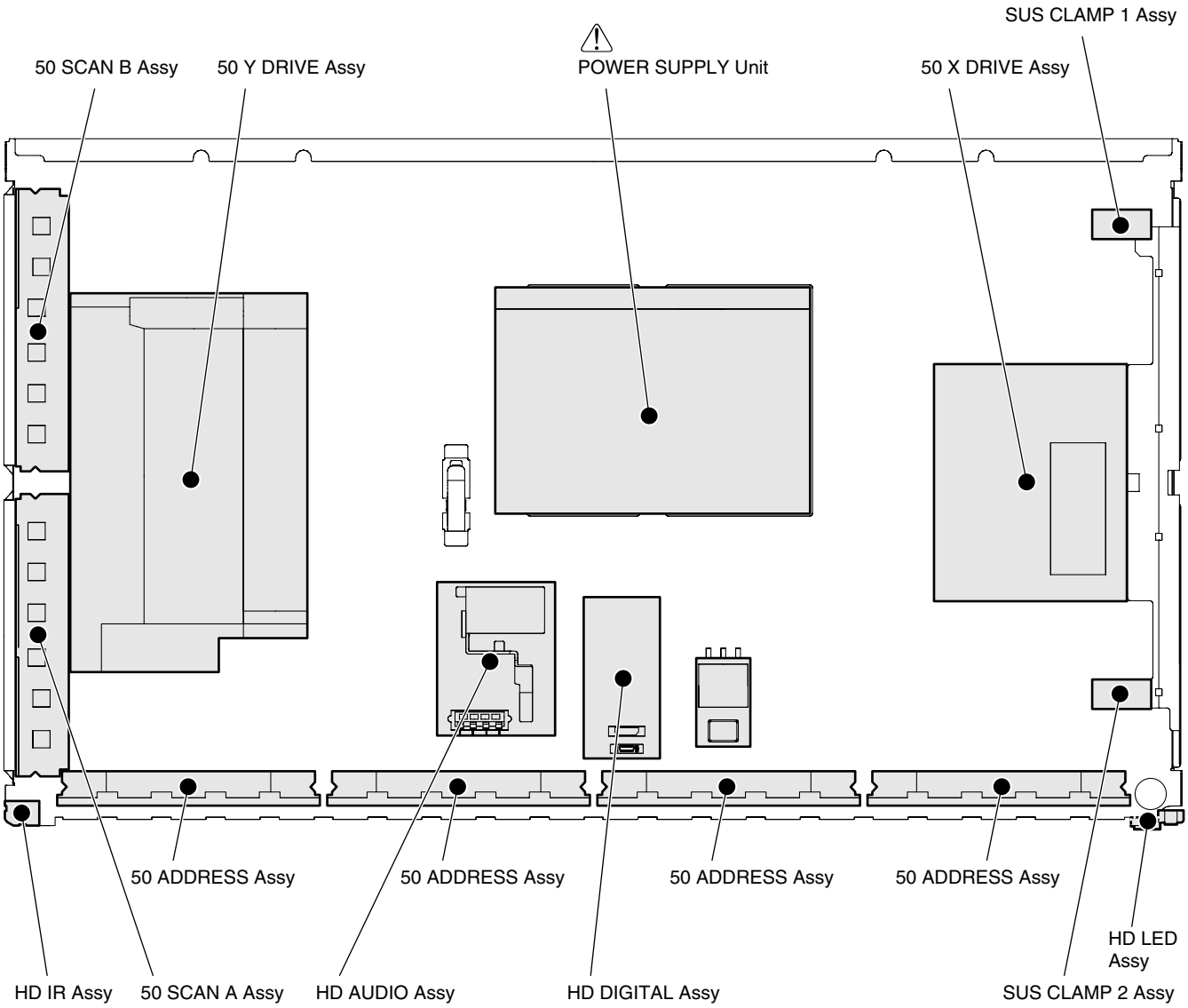
Command	Voltage [V]		Command	Voltage [V]		Command	Voltage [V]	
	50-inch Model	43-inch Model		50-inch Model	43-inch Model		50-inch Model	43-inch Model
VRP000	246.3	236.3	VRP056	270.6	260.6	VRP112	294.9	284.9
VRP001	246.7	236.7	VRP057	271.0	261.0	VRP113	295.4	285.4
VRP002	247.1	237.1	VRP058	271.5	261.5	VRP114	295.8	285.8
VRP003	247.6	237.6	VRP059	271.9	261.9	VRP115	296.2	286.2
VRP004	248.0	238.0	VRP060	272.3	262.3	VRP116	296.7	286.7
VRP005	248.4	238.4	VRP061	272.8	262.8	VRP117	297.1	287.1
VRP006	248.9	238.9	VRP062	273.2	263.2	VRP118	297.5	287.5
VRP007	249.3	239.3	VRP063	273.6	263.6	VRP119	298.0	288.0
VRP008	249.7	239.7	VRP064	274.1	264.1	VRP120	298.4	288.4
VRP009	250.2	240.2	VRP065	274.5	264.5	VRP121	298.8	288.8
VRP010	250.6	240.6	VRP066	274.9	264.9	VRP122	299.3	289.3
VRP011	251.0	241.0	VRP067	275.4	265.4	VRP123	299.7	289.7
VRP012	251.5	241.5	VRP068	275.8	265.8	VRP124	300.1	290.1
VRP013	251.9	241.9	VRP069	276.2	266.2	VRP125	300.6	290.6
VRP014	252.4	242.4	VRP070	276.7	266.7	VRP126	301.0	291.0
VRP015	252.8	242.8	VRP071	277.1	267.1	VRP127	301.4	291.4
VRP016	253.2	243.2	VRP072	277.5	267.5	VRP128	301.9	291.9
VRP017	253.7	243.7	VRP073	278.0	268.0	VRP129	302.3	292.3
VRP018	254.1	244.1	VRP074	278.4	268.4	VRP130	302.7	292.7
VRP019	254.5	244.5	VRP075	278.9	268.9	VRP131	303.2	293.2
VRP020	255.0	245.0	VRP076	279.3	269.3	VRP132	303.6	293.6
VRP021	255.4	245.4	VRP077	279.7	269.7	VRP133	304.0	294.0
VRP022	255.8	245.8	VRP078	280.2	270.2	VRP134	304.5	294.5
VRP023	256.3	246.3	VRP079	280.6	270.6	VRP135	304.9	294.9
VRP024	256.7	246.7	VRP080	281.0	271.0	VRP136	305.3	295.3
VRP025	257.1	247.1	VRP081	281.5	271.5	VRP137	305.8	295.8
VRP026	257.6	247.6	VRP082	281.9	271.9	VRP138	306.2	296.2
VRP027	258.0	248.0	VRP083	282.3	272.3	VRP139	306.7	296.7
VRP028	258.4	248.4	VRP084	282.8	272.8	VRP140	307.1	297.1
VRP029	258.9	248.9	VRP085	283.2	273.2	VRP141	307.5	297.5
VRP030	259.3	249.3	VRP086	283.6	273.6	VRP142	308.0	298.0
VRP031	259.7	249.7	VRP087	284.1	274.1	VRP143	308.4	298.4
VRP032	260.2	250.2	VRP088	284.5	274.5	VRP144	308.8	298.8
VRP033	260.6	250.6	VRP089	284.9	274.9	VRP145	309.3	299.3
VRP034	261.0	251.0	VRP090	285.4	275.4	VRP146	309.7	299.7
VRP035	261.5	251.5	VRP091	285.8	275.8	VRP147	310.1	300.1
VRP036	261.9	251.9	VRP092	286.2	276.2	VRP148	310.6	300.6
VRP037	262.3	252.3	VRP093	286.7	276.7	VRP149	311.0	301.0
VRP038	262.8	252.8	VRP094	287.1	277.1	VRP150	311.4	301.4
VRP039	263.2	253.2	VRP095	287.5	277.5	VRP151	311.9	301.9
VRP040	263.6	253.6	VRP096	288.0	278.0	VRP152	312.3	302.3
VRP041	264.1	254.1	VRP097	288.4	278.4	VRP153	312.7	302.7
VRP042	264.5	254.5	VRP098	288.8	278.8	VRP154	313.2	303.2
VRP043	264.9	254.9	VRP099	289.3	279.3	VRP155	313.6	303.6
VRP044	265.4	255.4	VRP100	289.7	279.7	VRP156	314.0	304.0
VRP045	265.8	255.8	VRP101	290.1	280.1	VRP157	314.5	304.5
VRP046	266.3	256.3	VRP102	290.6	280.6	VRP158	314.9	304.9
VRP047	266.7	256.7	VRP103	291.0	281.0	VRP159	315.3	305.3
VRP048	267.1	257.1	VRP104	291.4	281.4	VRP160	315.8	305.8
VRP049	267.6	257.6	VRP105	291.9	281.9	VRP161	316.2	306.2
VRP050	268.0	258.0	VRP106	292.3	282.3	VRP162	316.6	306.6
VRP051	268.4	258.4	VRP107	292.8	282.8	VRP163	317.1	307.1
VRP052	268.9	258.9	VRP108	293.2	283.2	VRP164	317.5	307.5
VRP053	269.3	259.3	VRP109	293.6	283.6	VRP165	317.9	307.9
VRP054	269.7	259.7	VRP110	294.1	284.1	VRP166	318.4	308.4
VRP055	270.2	260.2	VRP111	294.5	284.5	VRP167	318.8	308.8

■ Conversion charts for electronic VRs: Conversion chart for the Vyprst (2/2)

Conversion chart for the Vyprst (Commands vs. Voltage values for the 50-inch and 43-inch models)

Command	Voltage [V]		Command	Voltage [V]	
	50-inch Model	43-inch Model		50-inch Model	43-inch Model
VRP168	319.2	309.2	VRP224	343.6	333.6
VRP169	319.7	309.7	VRP225	344.0	334.0
VRP170	320.1	310.1	VRP226	344.4	334.4
VRP171	320.6	310.6	VRP227	344.9	334.9
VRP172	321.0	311.0	VRP228	345.3	335.3
VRP173	321.4	311.4	VRP229	345.7	335.7
VRP174	321.9	311.9	VRP230	346.2	336.2
VRP175	322.3	312.3	VRP231	346.6	336.6
VRP176	322.7	312.7	VRP232	347.1	337.1
VRP177	323.2	313.2	VRP233	347.5	337.5
VRP178	323.6	313.6	VRP234	347.9	337.9
VRP179	324.0	314.0	VRP235	348.4	338.4
VRP180	324.5	314.5	VRP236	348.8	338.8
VRP181	324.9	314.9	VRP237	349.2	339.2
VRP182	325.3	315.3	VRP238	349.7	339.7
VRP183	325.8	315.8	VRP239	350.1	340.1
VRP184	326.2	316.2	VRP240	350.5	340.5
VRP185	326.6	316.6	VRP241	351.0	341.0
VRP186	327.1	317.1	VRP242	351.4	341.4
VRP187	327.5	317.5	VRP243	351.8	341.8
VRP188	327.9	317.9	VRP244	352.3	342.3
VRP189	328.4	318.4	VRP245	352.7	342.7
VRP190	328.8	318.8	VRP246	353.1	343.1
VRP191	329.2	319.2	VRP247	353.6	343.6
VRP192	329.7	319.7	VRP248	354.0	344.0
VRP193	330.1	320.1	VRP249	354.4	344.4
VRP194	330.5	320.5	VRP250	354.9	344.9
VRP195	331.0	321.0	VRP251	355.3	345.3
VRP196	331.4	321.4	VRP252	355.7	345.7
VRP197	331.8	321.8	VRP253	356.2	346.2
VRP198	332.3	322.3	VRP254	356.6	346.6
VRP199	332.7	322.7	VRP255	357.0	347.0
VRP200	333.2	323.2			
VRP201	333.6	323.6			
VRP202	334.0	324.0			
VRP203	334.5	324.5			
VRP204	334.9	324.9			
VRP205	335.3	325.3			
VRP206	335.8	325.8			
VRP207	336.2	326.2			
VRP208	336.6	326.6			
VRP209	337.1	327.1			
VRP210	337.5	327.5			
VRP211	337.9	327.9			
VRP212	338.4	328.4			
VRP213	338.8	328.8			
VRP214	339.2	329.2			
VRP215	339.7	329.7			
VRP216	340.1	330.1			
VRP217	340.5	330.5			
VRP218	341.0	331.0			
VRP219	341.4	331.4			
VRP220	341.8	331.8			
VRP221	342.3	332.3			
VRP222	342.7	332.7			
VRP223	343.1	333.1			

7. GENERAL INFORMATION
7.1 DIAGNOSIS
7.1.1 PCB LOCATION



7.1.2 DIAGNOSIS OF SHUTDOWN/POWER-DOWN INDICATED BY LEDS

• Operation statuses indicated by LEDs

Status	LED Pattern			
Standby	1	Lit in Red	Blue Red	
Power ON	2	Lit in Blue	Blue Red	
AC Power OFF of one side	3	Red flashes (1000ms)	Blue Red	1000ms
System cable disconnection	4	Red and blue flash (1000ms)	Blue Red	1000ms 1000ms
Power-down	5	Red flashes (500+2500ms)	Blue Red	Once Twice n times 2.5s Once 500ms
Shutdown	6	Blue flashes (500+2500ms)	Blue Red	500ms Once Twice n times 2.5s Once
No backup copy	7	Lit in Red and blue flashes (200ms)	Blue Red	200ms

: Lit in Red LED
: Lit in Blue LED

• PD (power-down) count

1	Not used
2	POWER SUPPLY Unit
3	SCAN Assy
4	5V power supply for SCAN
5	Y-DRIVE (Not used)
6	DCDC for Y drive
7	Y-SUS
8	ADDRESS Assy
9	X-DRIVE
10	DCDC for X drive
11	X-SUS
12	Not used
13	Sequence drive stop
14	Not used
15	UNKNOWN

Note:
- When a shutdown occurs, a warning will be issued by the Media Receiver and displayed, then the power will be shut off.
- When a shutdown or power-down occurs on the Panel side, the Media Receiver will enter Standby mode (the red LED will light).

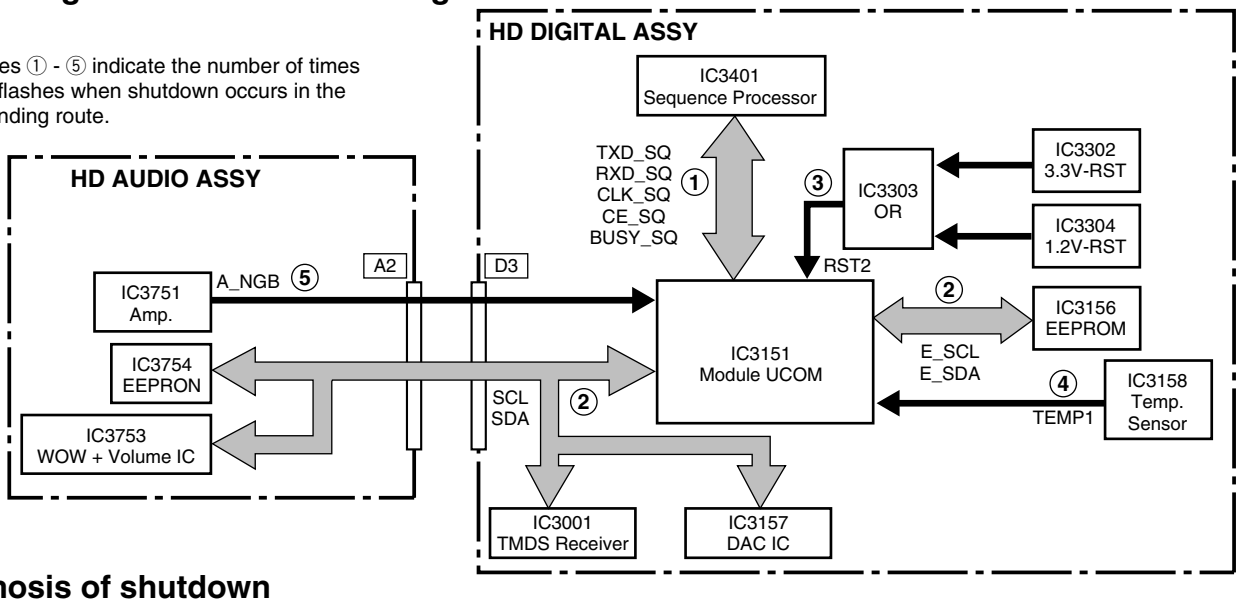
• SD (shut down) count

1	SEQUENCE PROCESSOR (SQ_IC)
2	MDU-IIC
3	RST2 abnormality
4	Panel high temperature
5	Speaker short-circuit *

* When a jumper (J105) between the HD AUDIO Assy and the POWER SUPPLY Unit is disconnected, the SD LED flashes five times in this manner.

• Block diagram of the shutdown signal

Note:
The figures ① - ⑤ indicate the number of times the LED flashes when shutdown occurs in the corresponding route.



• Diagnosis of shutdown

Number of flashes	SD Circuit in Operation	Defective Assy	Reason for Shutdown	Point to be Checked	Possible Defective Part	Remarks
1 time	Communication failure of the driving processor	HD DIGITAL	Communication failure of IC3401	SQ ASIC BLOCK, PANEL FLASH BLOCK	IC3401, IC3301	
			Writing failure of IC3401			Check if version data can be read, using the "GS1" command, after the power is turned on again.
2 times	Communication failure of the IIC line (Check the SD subcategory on the Factory Menu.)	HD DIGITAL	Communication failure of the EEPROM (for retaining 4-Kbyte of data)	MODULE UCOM BLOCK	IC3156, IC3157	
				TMDS BLOCK	IC3001	
		HD AUDIO	Communication failure of the EEPROM (2-kbyte : for backup)	AUDIO AMP BLOCK	IC3754	
			Disconnection of connectors	A2 - D3		Check if the connectors are disconnected or are not connected securely.
			Defective volume IC	HD AUDIO Assy	IC3753	
3 times	Power failure of the driving processor (RST2)	HD DIGITAL	Defective DC-DC converter	DIGITAL DD CON BLOCK	U3601	Check if 3.3-V and 1.2-V power supplies are activated.
			Defective RST IC	PANEL FLASH BLOCK	IC3302 - IC3304	
			Defective IC3401	SQ ASIC BLOCK	IC3401	
		POWER SUPPLY	The 8-V power supply is not activated.			Check if the 8-V power is supplied at Pin 1 of the D11 connector.
4 times	Abnormally high temperature of the panel		Abnormally high temperature of the panel	Ambient temperature		The Panel will be shut down if the sensor detects temperature of 75°C or higher (for the PDP-436P/-506P).
5 times	Audio failure		Speakers' grounding fault	Speaker terminals		Check if the speaker cables are in contact with the chassis, etc.
		HD AUDIO	Defective AMP IC	HD AUDIO Assy	IC3751	
		HD AUDIO	Disconnection of connectors	A1 - P5		Check if the connectors are disconnected or are not connected securely.

• Power-down diagnosis (defective points)

Number of Blinks	PD Circuit in Operation	Defective PCB Assy	Reason for PD (Power-down)	Point to be Checked	Possible Defective Part	Remarks
2	POWER	POWER SUPPLY				
3	SCAN	50 (43) SCAN A, B	VH UVP	SCAN IC	SCAN IC	VH-GNDH short-circuit
		50 (43) Y DRIVE		Y SUS BLOCK	IC2252, IC2253	VSUS-SUSOUT, SUSOUT-SUSGND short-circuit
				VH DC/DC	IC2502, L2501	
			Disconnection of cable detected	CN2001, CN2350		
		50 (43) X DRIVE	VH UVP	IC1202	IC1202	VSUS-SUSOUT, SUSOUT-SUSGND short-circuit
4	SCN-5V	50 (43) SCAN A, B	Disconnection of cable detected	CN2401, CN2402		
		50 (43) Y DRIVE	IC5V UVP	SCAN IC	SCAN IC	
				IC5V DC/DC	Q2605, R2647	
				Y SUS BLOCK	R2352	
6	Y-DCDC	50 (43) Y DRIVE	VOFS UVP	VOFS DC/DC	Q2606, R2619, R2620	
				Y SUS BLOCK	IC2252, IC2253, Q2280, Q2281	MSKS-SUSOUT short-circuit
			Vprst UVP	Vprst Regulator	Q2531, Q2532, IC2535	
7	Y-SUS	50 (43) Y DRIVE	Power-down caused by detection of middle-point voltage	Y RESONANCE BLOCK	IC2101	
				Y SUS BLOCK	Q2221	
8	ADRS	50 (43) ADDRESS	Address power-down	ADDRESS RESONANCE BLOCK	D1634	V+ADR-GND_ADR short-circuit
			Disconnection of cable detected	CN1501, CN3501-CN3504		
9	XDRIVE	50 (43) X DRIVE	Disconnection of cable detected	CN1001		
10	X-DCDC	50 (43) X DRIVE	Disconnection of cable detected	CN1201		
			VRN UVP	VRN DC/DC	Q1323, R1332, R1333	
				X SUS BLOCK	R1204, Q1272	
11	X-SUS	50 (43) X DRIVE	Power-down caused by detection of middle-point voltage	X RESONANCE BLOCK	IC1101	

OVP : **O**VER **V**OLTAGE **P**ROTECT
UVP : **U**NDER **V**OLTAGE **P**ROTECT

7.1.3 OVERVIEW OF PANEL FACTORY MODE

■ Top screen of the Factory Menu for the main unit

MR INFORMATION

< MUTE > key

FUNC. CHECK

< MUTE > key

COMMON ADJ.

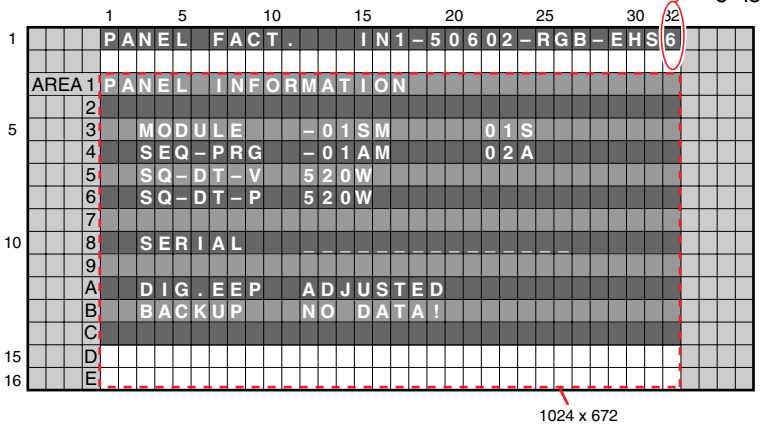
< MUTE > key

PANEL FACTORY

< SET > key

Top screen of the Panel Factory

If a Panel of Generation 6 is connected, "6" is indicated here.



Note: With this model, the structure of Factory mode has been changed, and all items related to the Panel are gathered into PANEL FACTORY mode.

Note: On-screen displays in Factory mode are indicated in white characters on a green background for the PDP-506HD/436HD and subsequent models.

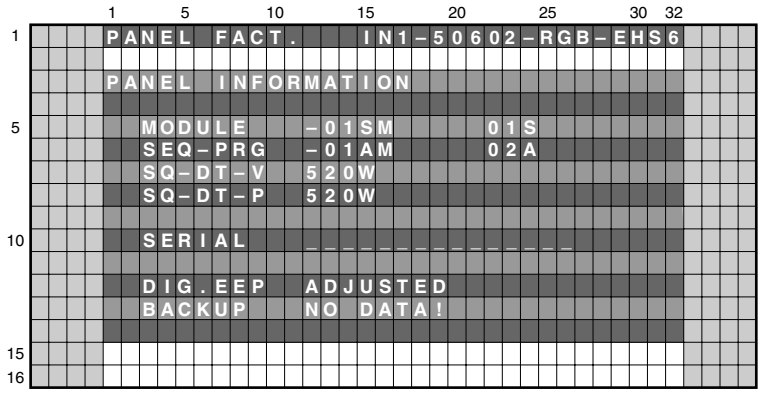
■ Configuration of Panel Factory mode

No.	Submode Name / Submode Items	Adjustable Range	Remarks
1	PANEL INFORMATION		
2	PANEL WORKS		
3	POWER DOWN		
4	SHUT DOWN		
5	PANEL-1 ADJ (+)		
5-1	X-SUS B <=>	120 to 136	Equivalent to XSB
5-2	Y-SUS B <=>	120 to 136	Equivalent to YSB
5-3	Y-SUSTAIL T <=>	120 to 136	Equivalent to YTG
5-4	Y-SUSTAIL W <=>	120 to 136	Equivalent to YTW
5-5	XY-RST W <=>	120 to 136	Equivalent to RSW
5-6	VOL SUS <=>	000 to 255	Equivalent to VSU
5-7	VOL OFFSET <=>	000 to 255	Equivalent to VOF
5-8	VOL RST P <=>	000 to 255	Equivalent to VRP
5-9	SUS FREQ. <=>	MODE1 to MODE8	Equivalent to SFR
6	PANEL-2 ADJ (+)		
6-1	R-HIGH <=>	000 to 511	Equivalent to PRH
6-2	G-HIGH <=>	000 to 511	Equivalent to PGH
6-3	B-HIGH <=>	000 to 511	Equivalent to PBH
6-4	R-LOW <=>	000 to 999	Equivalent to PRL
6-5	G-LOW <=>	000 to 999	Equivalent to PGL
6-6	B-LOW <=>	000 to 999	Equivalent to PBL
6-7	ABL <=>	000 to 255	Equivalent to ABL
7	PANEL REVISE		
7-1	R-LEVEL <=>	LV-0 to LV-7	Equivalent to RRL
7-2	G-LEVEL <=>	LV-0 to LV-7	Equivalent to RGL
7-3	B-LEVEL <=>	LV-0 to LV-7	Equivalent to RBL
8	ETC (+)		
8-1	BACKUP DATA <=>	NO OPRT<=>TRANSFER or ERR	Equivalent to BCP
8-2	DIGITAL EEPROM <=>	NO OPRT<=>DELETE/REPAIR	Equivalent to FAJ/UAJ
8-3	PD INFO. <=>	NO OPRT <=>CLEAR	Equivalent to CPD
8-4	SD INFO. <=>	NO OPRT <=>CLEAR	Equivalent to CSD
8-5	HR-MTR INFO. <=>	NO OPRT <=>CLEAR	Equivalent to CHM
8-6	PM/B1-B5 <=>	NO OPRT <=>CLEAR	Equivalent to CPM
8-7	P-COUNT INFO. <=>	NO OPRT <=>CLEAR	Equivalent to CPC
9	MASK SETUP (+)		
9-1	MASK OFF		Equivalent to MKS+S00
9-2	SGL MASK 01 <=>	<=>V48<=>V50<=>V60<=>P60<=>P70<=>V72<=>V75<=> (Select each sequence.)	Equivalent to MKS+S01
9-3	SGL MASK 02 <=>		Equivalent to MKS+S02
	• • •		• • •
9-62	CMB MASK 08 <=>		Equivalent to MKC+S08
9-63	CMB MASK 09 <=>		Equivalent to MKC+S09

■ Details on submodes related to the panel

The GUI display examples here are those displayed when the main unit is used with the 50-inch model.

1. PANEL INFORMATION



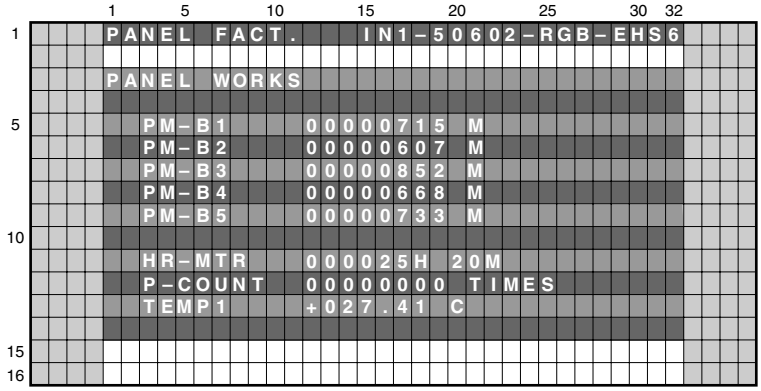
■ Key operation

<DOWN> : Shifting to PANEL WORKS
<UP> : Shifting to MASK SETUP (+)
<SEL> : MASK ON/OFF
<L/R> : Updating displayed information

The version of the microcomputer of the panel, serial number of the main unit, adjustment values of the main unit, and backup status are displayed.

2. PANEL WORKS

Note:
Screen display " PANEL_FACT.___IN1-50602-RGB-EHS6".
Refer to service manual of Media Receiver.

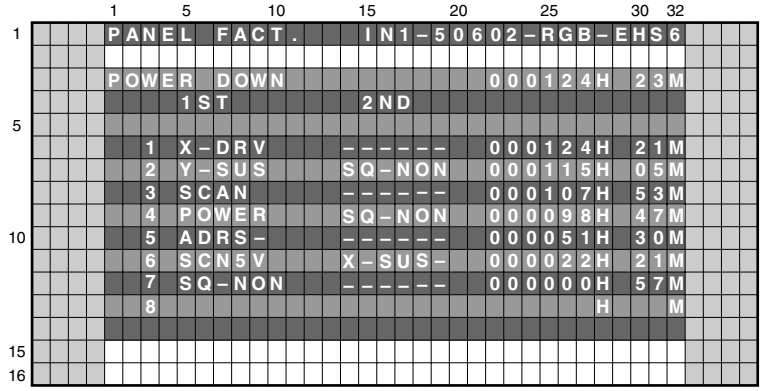


■ Key operation

<DOWN> : Shifting to POWER DOWN
<UP> : Shifting to PANEL INFORMATION
<SEL> : MASK ON/OFF
<L/R> : Updating displayed information

- The data from the pulse meter for each block from PM-B1 to PM-B5 are indicated. The values stored in the EEPROM (3 bytes each) are each converted into a decimal number, and the higher-order 8 digits are displayed (that means that the lowest-order digit represents millions).
- TEMP1: Indicates the temperature of the panel. By your pressing the L or R key, the temperature value can be updated.

3. POWER DOWN



■ Key operation

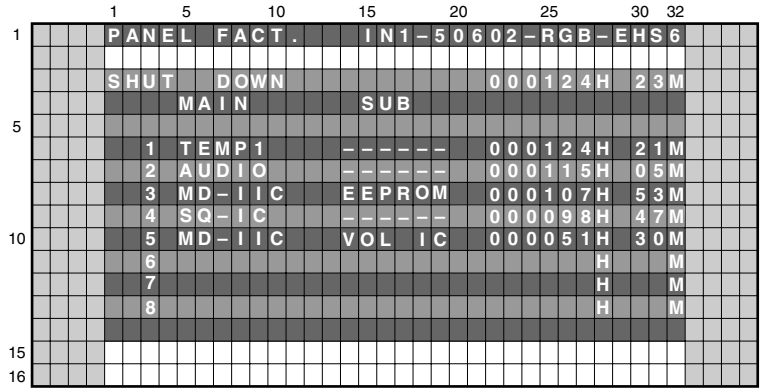
<DOWN> : Shifting to SHUTDOWN
<UP> : Shifting to PANEL WORKS
<SEL> : MASK ON/OFF
<L/R> : Updating displayed information

• Basically, data acquired with the command QPD are displayed in the columns "1ST" and "2ND, with the values from the hour meter when the power-down occurred.

<Causes of power-down and corresponding OSD indications>

Cause of power-down	OSD Indication	Cause of power-down	OSD Indication
POWER SUPPLY Unit	P-PWR	ADDRESS Assy	ADRS
SCAN Assy	SCAN	X-DRIVE Assy	X-DRV
5V power for SCAN	SCN5V	DCDC for X drive	X-DCDC
Not used		X-SUS	X-SUS
DCDC for Y drive	Y-DCDC	Sequence drive stopped	SQ-NON
Y-SUS	Y-SUS	Specification inability	UNKNOW

4. SHUT DOWN



■ Key operation

<DOWN> : Shifting to PANEL-2ADJ (+)
<UP> : Shifting to POWER DOWN
<SEL> : MASK ON/OFF
<L/R> : Updating displayed information

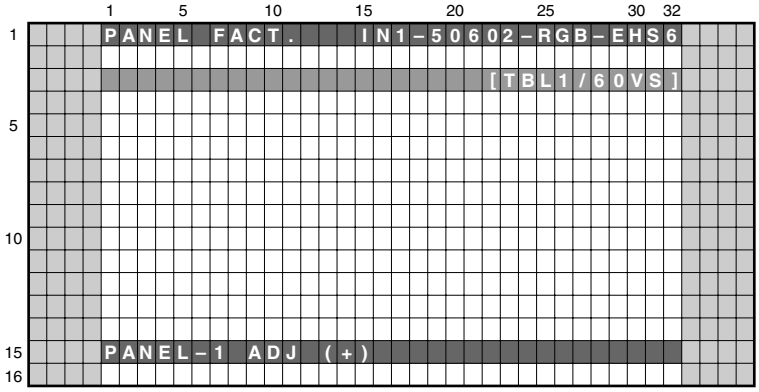
• Basically, data acquired with the command QSD (for MDU-IIC, subcategory data are also displayed) are displayed with the values from the hour meter when the shutdown occurred.

<Causes of shutdown and corresponding OSD indications>

Cause of shutdown (main)	OSD Indication
SEQUENCE PROCESSOR	SQ-IC
MDU-IIC	MDU-IIC (with subcategory)
Abnormality in RST2	RST2
Panel having high temperature	TEMP1
Short-circuited speaker	AUDIO

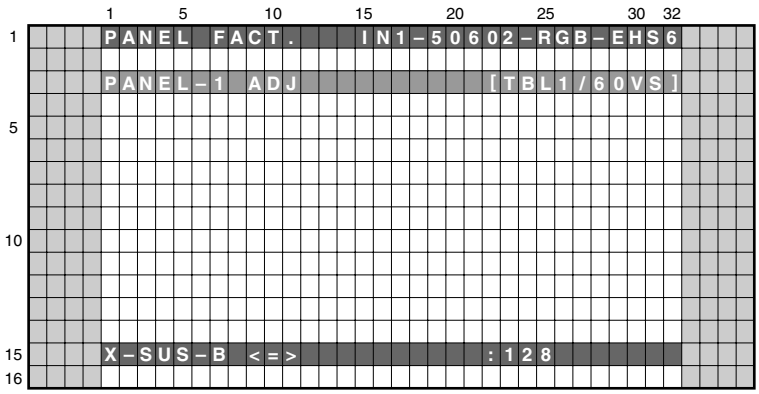
Cause of shutdown (sub)	OSD Indication
EEPROM	EEPROM (IC3156)
BACKUP	BACKUP (IC3754)
DAC	DAC (IC3302 to IC3304)
Audio IC	VOL-IC (IC3158)
DVI	DVI

5. PANEL-1 ADJ



■ Key operation

<DOWN> : Shifting to PANEL-2 ADJ (+)
<UP> : Shifting to POWER DOWN
<SET> : Shifting to the next nested layer
<SEL> : MASK ON/OFF



■ Key operation

<DOWN> : Shifting to the next item
<UP> : Shifting to the previous item
<RIGHT> : Adding by one to the adjustment value
<LEFT> : Subtracting by one from the adjustment value
<VOL+> : Adding by 10 to the adjustment value
<VOL-> : Subtracting by 10 from the adjustment value
<SET> : Determining the adjustment value and shifting to the upper layer
<SEL> : MASK ON/OFF

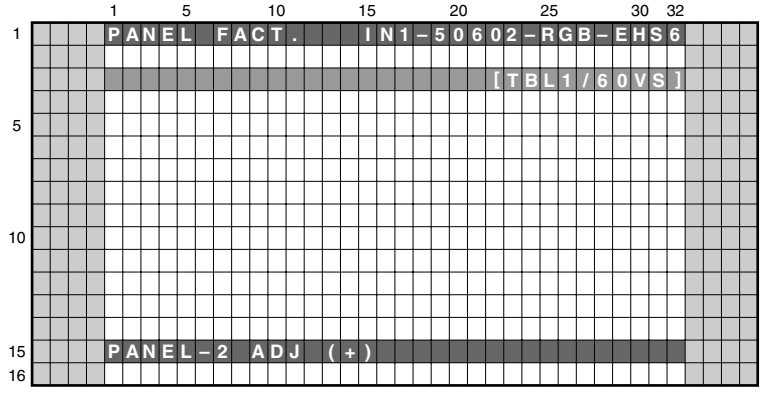
<Drive-sequence indications and indications for the ABL/WB tables>
(The OSD indications are displayed at the right part of the third line for submode PANEL-1 ADJ and subsequent submodes.)

Type of WB/ABL Tables		Type of Drive Sequences					
		Standard Video/MASK ON		Nonstandard Video		PC	
TBL1		48VS		---		60PS	Not used for consumer products
TBL2		50VS		50VN		70PS	
TBL3		60VS		60VN			
TBL4		72VS	Only Mask indication	---			
		75VS		75VN			

<Lower-layer items of PANEL-1 ADJ>

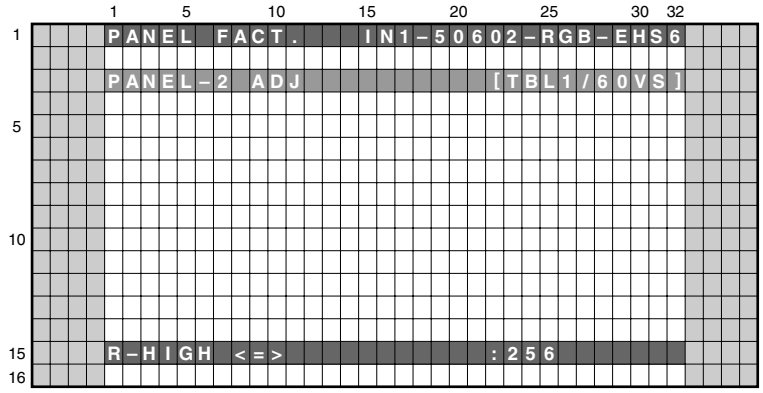
No.	Items	Adjustment/Setting Value	Remarks
1	X-SUS B <=>	120 to 136	Equivalent to XSB
2	Y-SUS B <=>	120 to 136	Equivalent to YSB
3	Y-SUSTAIL T <=>	120 to 136	Equivalent to YTG
4	Y-SUSTAIL W <=>	120 to 136	Equivalent to YTW
5	XY-RST W <=>	120 to 136	Equivalent to RSW
6	VOL SUS <=>	000 to 255	Equivalent to VSU
7	VOL OFFSET <=>	000 to 255	Equivalent to VOF
8	VOL RST P <=>	000 to 255	Equivalent to VRP
9	SUS FREQ. <=>	<=>MODE1 to MODE8<=>	Equivalent to SFR

6. PANEL-2 ADJ



■ Key operation

<DOWN> : Shifting to PANEL REVISE
<UP> : Shifting to PANEL-1 ADJ (+)
<SEL> : MASK ON/OFF
<SET> : Shifting to the next nested layer



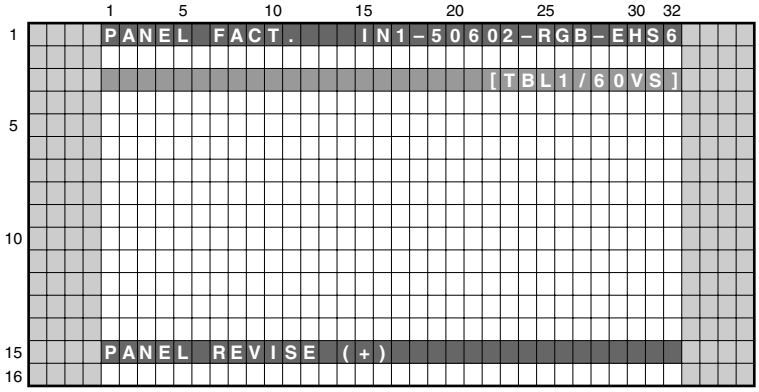
■ Key operation

<DOWN> : Shifting to the next item
<UP> : Shifting to the previous item
<RIGHT> : Adding by one to the adjustment value
<LEFT> : Subtracting by one from the adjustment value
<VOL+> : Adding by 10 to the adjustment value
<VOL-> : Subtracting by 10 from the adjustment value
<SET> : Determining the adjustment value and shifting to the upper layer
<SEL> : MASK ON/OFF

<Lower-layer items of PANEL-2 ADJ>

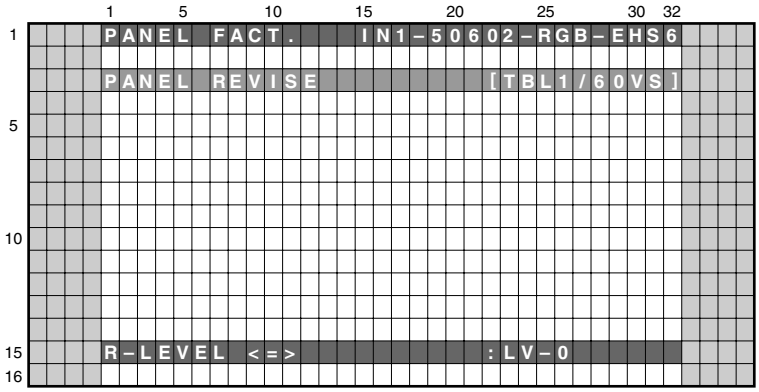
No.	Items	Adjustment/Setting Value	Remarks
1	R-HIGH <=>	000 to 511	Equivalent to PRH
2	G-HIGH <=>	000 to 511	Equivalent to PGH
3	B-HIGH <=>	000 to 511	Equivalent to PBH
4	R-LOW <=>	000 to 999	Equivalent to PRL
5	G-LOW <=>	000 to 999	Equivalent to PGL
6	B-LOW <=>	000 to 999	Equivalent to PBL
7	ABL <=>	000 to 255	Equivalent to ABL

7. PANEL REVISE



■ Key operation

<DOWN> : Shifting to ETC.(+)
<UP> : Shifting to PANEL-2 ADJ (+)
<SEL> : MASK ON/OFF
<SET> : Shifting to the next nested layer



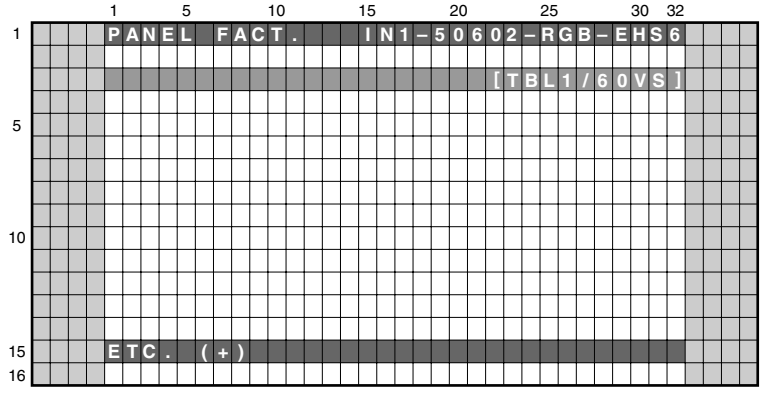
■ Key operation

<DOWN> : Shifting to the next item
<UP> : Shifting to the previous item
<RIGHT> : Adding by one to the adjustment value
<LEFT> : Subtracting by one from the adjustment value
<VOL+> : Adding by 10 to the adjustment value
<VOL-> : Subtracting by 10 from the adjustment value
<SET> : Determining the setting value and shifting to the upper layer
<SEL> : MASK ON/OFF

<Lower-layer items of PANEL REVISE>

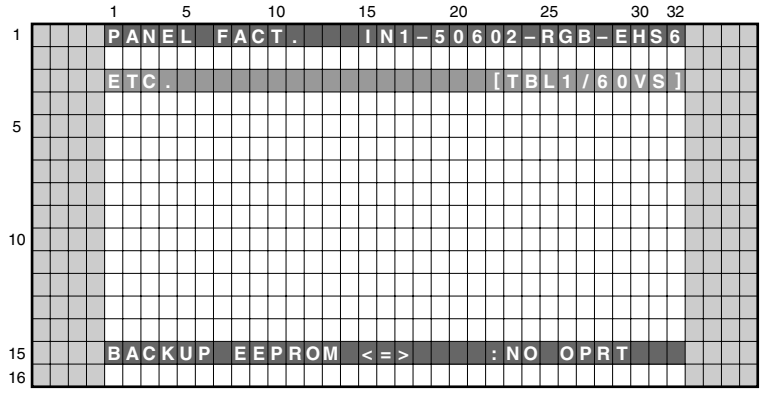
No.	Items	Adjustment/Setting Value	Remarks
1	R-LEVEL <=>	<=>LV-0 to LV-7<=>	Equivalent to RRL
2	G-LEVEL <=>	<=>LV-0 to LV-7<=>	Equivalent to RGL
3	B-LEVEL <=>	<=>LV-0 to LV-7<=>	Equivalent to RBL

8. ETC.



■ Key operation

<DOWN> : Shifting to MASK SETUP (+)
<UP> : Shifting to PANEL REVISE (+)
<SEL> : MASK ON/OFF
<SET> : Shifting to the next nested layer



■ Key operation

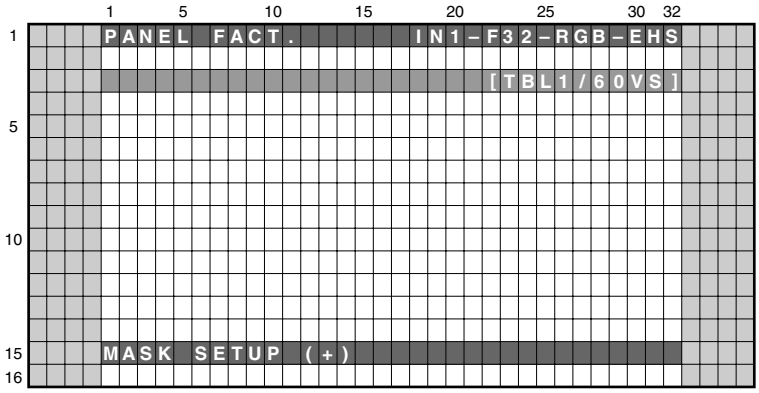
<DOWN> : Shifting to the next item
<UP> : Shifting to the previous item
<RIGHT> : Adding by one to the adjustment value
<LEFT> : Subtracting by one from the adjustment value
<SET> : Determining the setting value and shifting to the upper layer
<SEL> : MASK ON/OFF

<Lower-layer items of ETC.>

No.	Items	Adjustment/Setting Value	Remarks
1	BACKUP DATA <=>	<=>NO OPRT<=>TRANSFER<=>	"ERR" is indicated when no data are in the backup EEPROM. To activate the option to select TRANSFER, press the SET key about 5 seconds. (There is a situation resting more than 5 seconds.)
2	DIGITAL EEPROM <=>	<=>NO OPRT<=>REPAIR/DELETE<=>	"DELETE" is indicated when the main unit has been already adjusted. To activate the option to select REPAIR/DELETE, press the SET key about 5 seconds. (There is a situation resting more than 5 seconds.)
3	PD INFO. <=>	<=>NO OPRT<=>CLEAR<=>	To activate the option to select CLEAR, repeatedly press the SET key about 5 seconds. (There is a situation resting more than 5 seconds.)
4	SD INFO. <=>	<=>NO OPRT<=>CLEAR<=>	
5	HR-MTR INFO. <=>	<=>NO OPRT<=>CLEAR<=>	
6	PM/B1-B5 <=>	<=>NO OPRT<=>CLEAR<=>	
7	P-COUNT INFO. <=>	<=>NO OPRT<=>CLEAR<=>	

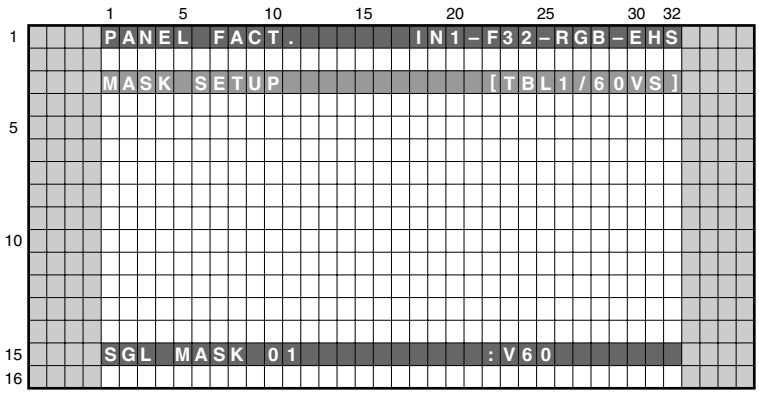
- "NO OPRT" is selected when this submode is entered (to avoid accidental misoperation).
- When each item is set, the process starts then the unit shifts to the upper layer. (When NO OPRT is determined, the unit will shift to the upper layer without doing anything.)
- When data are set to be backed up, if the digital EEPROM has not been adjusted, do the operation of LED pattern No. 7.

9. MASK SETUP



■ Key operation

<DOWN> : Shifting to PANEL INFORMATION
<UP> : Shifting to ETC. (+)
<SEL> : MASK ON/OFF
<SET> : Shifting to the next nested layer



■ Key operation

<DOWN> : Shifting to the next MASK
<UP> : Shifting to the previous MASK
<RIGHT> : Changing MASK sequence (+)
<LEFT> : Changing MASK sequence (-)
<SET> : Determining the setting value and shifting to the upper layer
<SEL> : MASK ON/OFF

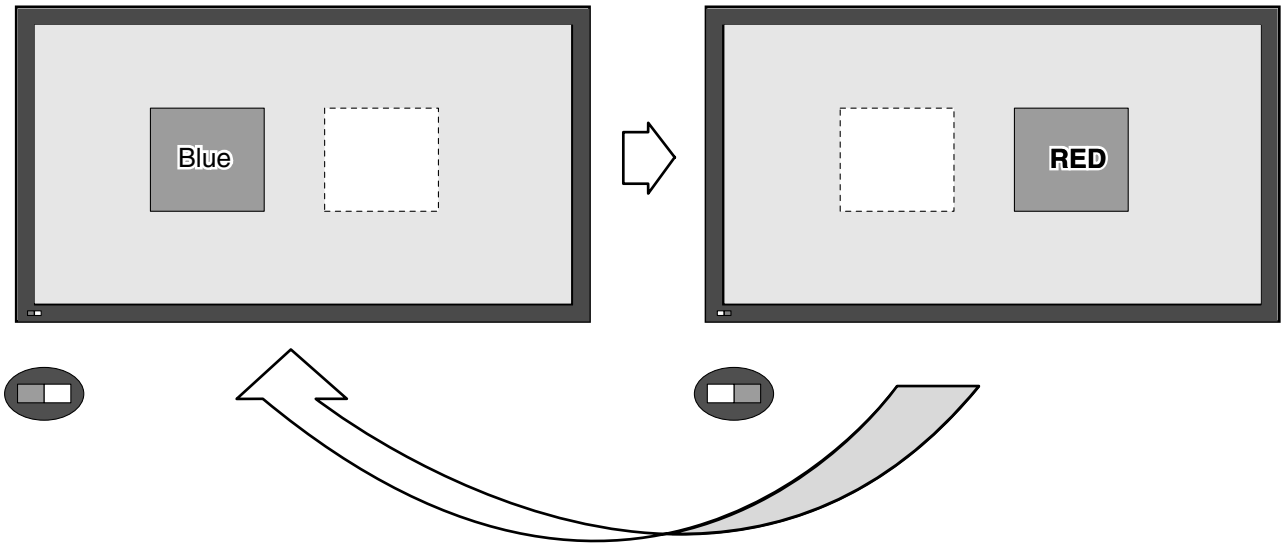
<Lower-layer items of MASK SETUP>

No.	Items	Adjustment/Setting Value	Remarks
1	MASK OFF		Equivalent to MKS+S00
2	SGL MASK 01 <=>	<=>48V<=>50V<=>60V<=> 60P<=>70P<=>72V<=>75V<=>	Equivalent to MKS+S01
3	SGL MASK 02 <=>		Equivalent to MKS+S02
4	• • •		• • •
5	CMB MASK 09 <=>		Equivalent to MKC+S08
6	CMB MASK 10 <=>		Equivalent to MKC+S09

• With the keys <LEFT> and <RIGHT>, the Panel drive sequence in the MASK indication is changed in the following way:
<=>48V<=>50V<=>60V<=>72V<=>75V<=>60P<=>70P<=>

7.1.4 OPERATION WHEN THE MEDIA RECEIVER IS NOT CONNECTED

As the connection conditions of the system cables (MDR cable, DVI cable) are usually detected, if no connection, such as cable disconnection, is detected, a warning indication (alternate flashing of the red and blue areas) is displayed on the mask screen, and the red and green LEDs flash alternately. Then after about 30 seconds, the power is automatically turned off.



Alternate flashing at intervals of about 1 second

To operate the panel without the Media Receiver, there are the following two ways:

1. Operation-without-the-Media-Receiver mode

Input the "SYS S00" RS232C command. The status of the LEDs changes to that in normal operation mode.

Note: Turning the AC switch to OFF then ON also maintains this mode. However, once the unit is connected with the Media Receiver using the System cable, this mode is automatically canceled.

2. DVI mode

Turn the unit on while DVI SG signals are being input with only the DVI connecter connected. After a warning is displayed for about 5 seconds, the unit is ready to display the screen of the input signal. (Blue LED lit)

Notes: • Although the output from XGA (43 inch) and WXGA (50 inch) can be input to the unit, this is not a mode open to general users. (With some signals, errors such as power-down may occur.)

7.1.5 POWER ON/OFF FUNCTION FOR THE LARGE-SIGNAL SYSTEM

Function: To prevent a power-down from being generated, operation of only the digital-signal processing and audio circuits are enabled, and power is not supplied to the panel driving system (large-signal system).

Usages: 1. In a case where a check is required of signals' being correctly output to the driving systems during a repair, etc.
2. In a case where diagnosis is required for judging whether the power to the large-signal system or small-signal system has been down when a power-down occurred

Methods: 1. Short-circuit the points (see Fig. 4 below) on the face and on the reverse side of the HD DIGITAL Assy.
2. Issue the "DRV S00" RS-232C command. (Command for turning the function off: DRV S01)

Notes:
- When the power to the large-signal system is off, as the PD signal is muted, power-downs other than PS_PD are not activated.
- As soon as the clips are removed while the power to the large-signal system is off, a power-down will occur. Be sure to turn the power off before removing the clips.
- While this function is activated with RS-232C commands, it is possible to issue "DRV S01" (for turning the function off) while the power is on. However, as it may damage the unit, turn the power off before issuing the "DRV S01" command.
- Although the "DRV S00/S01" RS-232C commands are valid during Standby mode, once the main power is turned off, the unit will return to "DRV S01."

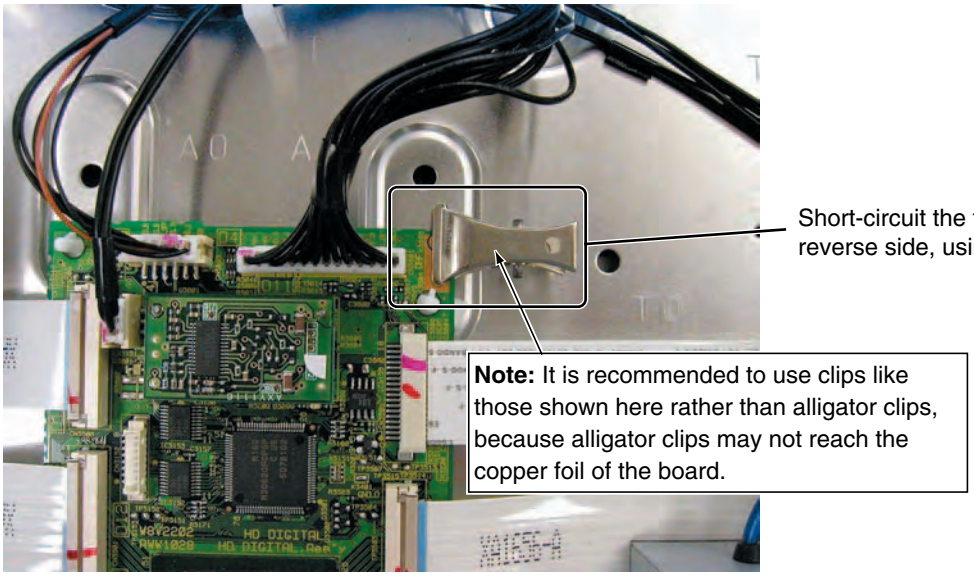


Fig. 4 Position of DRIVE OFF

7.1.6 BACKUP WHEN THE MAIN UNIT IS ADJUSTED

■ Outline

Adjustment data set at the factory are stored in the EEPROM (IC****/4K) on the HD DIGITAL Assy. Those adjustment data are automatically backed up in the EEPROM (backup EEPROM: IC****) on the HD AUDIO Assy. Therefore, even if the HD DIGITAL Assy is replaced, the adjustment data can be restored by copying the backup data, which enables you to omit newly performing adjustments on the main unit.

■ Data to be backed up

- Voltage margin adjustment values
- Data on the hour meter
- Upper limit of power-adjustment value
- Data on the pulse meter
- Panel WB adjustment values
- Serial number
- Drive waveform adjustment values
- Data of the P-ON counter
- PD/SD histories

■ How to copy the backup data

1. When the HD DIGITAL Assy is replaced with that for service (normal servicing)
   (In a case where no data are on the DIG. EEP, and backup data have been adjusted)

   Command: "BCP" (Effective during FAY)
   Factory Menu

   PANEL INFORMATION
   ▼ (down)
   • • •
   ▼ (down)
   ETC. (+)
   [set]
   BACKUP DATA: NO OPRT
   >> (right)
   BACKUP DATA: TRANSFER
   [set] (Press and hold for 5 seconds.)

   - After the HD DIGITAL Assy is replaced with that for service, check that “DIG. EEP: NO DATA!” is displayed on the Panel Information screen of the Factory Menu.
   - If this command is not executed, the red LED lights, and the blue LED flashes, to warn you that copying of the backup adjustment data for the main unit failed.
   - If both the HD DIGITAL Assy and HD AUDIO Assy are to be replaced, first replace the HD AUDIO Assy and set the unit to Standby mode. Then replace the HD DIGITAL Assy.

2. In a case where a HD DIGITAL Assy that was mounted on another unit is to be reused as a service part.

   Command: "FAJ" (Effective during FAY)
   Factory Menu: PANEL FACT => ETC => DIGITAL EEPROM: DELETE

   PANEL INFORMATION
   ▼ (down)
   • • •
   ▼ (down)
   ETC. (+)
   [set]
   BACKUP DATA: NO OPRT
   ▼ (down)
   DIGITAL EEPROM: NO OPRT
   >> (right)
   DIGITAL EEPROM: REPAIR
   [set] (Press and hold for 5 seconds.)

   - If the HD DIGITAL Assy of Unit 1 is mounted to be reused in Unit 2 to be repaired, and Unit 2 enters Standby mode, the adjustment data and histories stored in Unit 1 are erased, and those of Unit 2 are copied. Once overwritten, the original data will not be restored. After the Assy is replaced, be sure to enter Factory mode, using the remote control unit for servicing, and perform the procedures described herein. Or, before mounting an Assy to be reused as a service Assy, perform these procedures then mount it on the product to be repaired.

3. In a case where the HD DIGITAL Assy is replaced with one for servicing because of a defective EEPROM on the original Assy and manual adjustments are to be performed
   (In a case where no data are stored in the HD DIGITAL Assy or as backup, and the values that have been manually adjusted on Service Menu are to be applied as adjustment data for the main unit)

Command: "UAJ" (Effective during FAY)
Factory Menu

PANEL INFORMATION
▼ (down)
• • •
▼ (down)
ETC. (+)
[set]
BACKUP DATA: NO OPRT
▼ (down)
DIGITAL EEPROM: NO OPRT
>> (right)
DIGITAL EEPROM: REPAIR
[set] (Press and hold for 5 seconds.)

- If the HD DIGITAL Assy with which adjustment data for the main unit have been copied is mounted, the above procedures are not necessary after manual adjustment.
  (The indication "DIGITAL EEPROM: REPAIR" will not be displayed.)

7.1.7 HOW TO CLEAR HISTORY DATA

■ Clearing data on various histories when the HD DIGITAL Assy is replaced

Other than adjustment data for the main unit, data to be backed up include the accumulated power-on time and a history of defective parts, which are data updated and stored in memory. Among those data, some are required to be cleared when the HD DIGITAL Assy is replaced for servicing, as shown below:

Item	Backed-up data	Type of servicing			RS-232C command
		Panel replacement	Replacement of the power-supply block	Others	
Hour meter	Accumulated display	To be cleared	Not to be cleared	Not to be cleared	CHM
SD history	Point where an SD occurred and data on the hour meter	To be cleared	Not to be cleared	Not to be cleared	CSD
PD history	Point where a PD occurred and data on the hour meter	To be cleared	Not to be cleared	Not to be cleared	CPD
Pulse meter	Accumulated number of pulses of the Panel (5 blocks)	To be cleared (essential)	Not to be cleared	Not to be cleared	CPM
Accumulated number of power-ons	Accumulated number of RELAY_ONs	Not to be cleared	To be cleared (essential)	Not to be cleared	CPC

Notes:

1: With the PDP-506P/436P and subsequent models, because various compensation functions use pulse-meter data for calculating compensation values, if related Assys are replaced, data on various histories must be cleared.

2: To clear data using RS-232C commands, after entering Factory mode (by sending FAY or PFY), issue a corresponding command. Otherwise, the command will not be executed.

How to clear the history for each item on the Factory Menu

Start point of Panel Factory

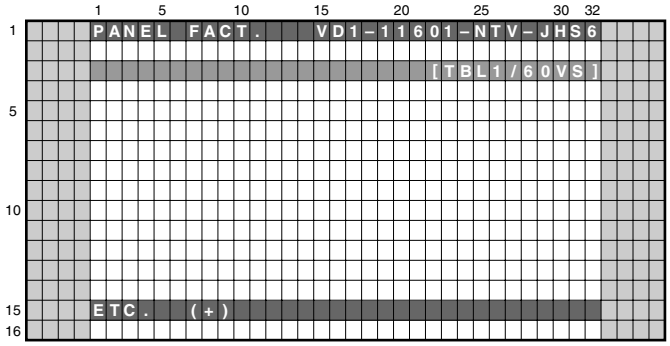
PANEL INFORMATION

▼ (down)

• • •

▼ (down)

ETC. (+)



[set]

BACKUP DATA

▼ (down)

DIGITAL EEPROM

▼ (down)

Clearing the PD history

PD INFO: NO OPRT >> (right) PD INFO: CLEAR

[set] (Press and hold for 5 seconds.)

▼ (down)

Clearing the SD history

SD INFO: NO OPRT >> (right) SD INFO: CLEAR

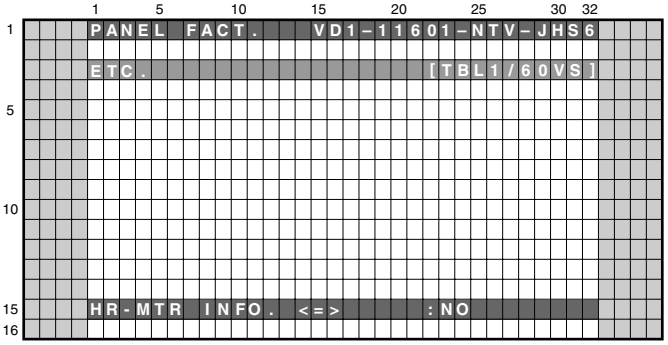
[set] (Press and hold for 5 seconds.)

▼ (down)

Clearing the data on the hour meter

HR-MTR INFO: NO OPRT >> (right) HR-MTR INFO: CLEAR

[set] (Press and hold for 5 seconds.)



▼ (down)

Clearing the data on the pulse meter

PM/B1-BS INFO: NO OPRT >> (right) PM/B1-BS INFO: CLEAR

[set] (Press and hold for 5 seconds.)

▼ (down)

Clearing the data on the number of power-ons

P COUNT INFO: NO OPRT >> (right) P COUNT INFO: CLEAR

[set] (Press and hold for 5 seconds.)

7.1.8 DISASSEMBLY

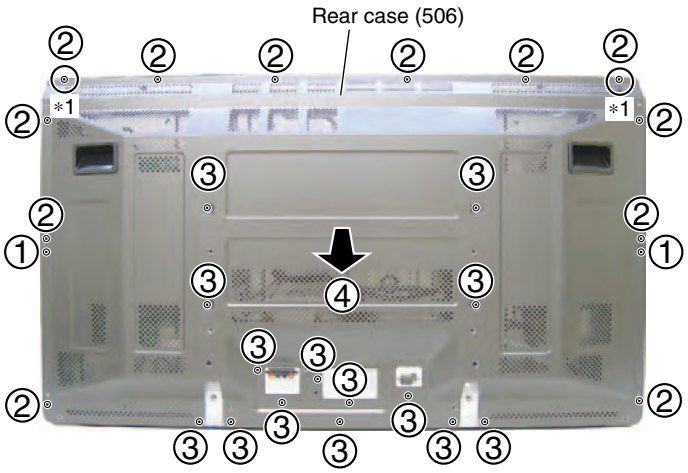
Note : Even if the unit shown in the photos and illustrations in this manual may differ from your product, the procedures described here are common.

1 Rear Case (506)

① Remove the two screws.
② Remove the tweleve screws.
③ Remove the fourteen screws.

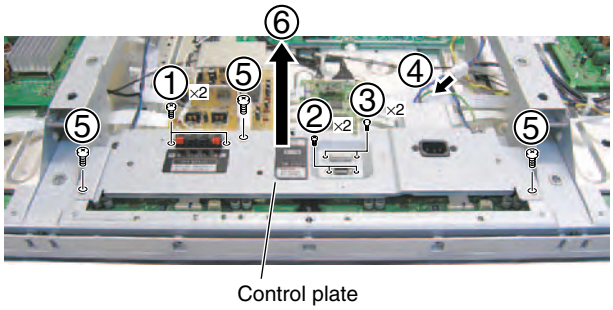
Note ∗1:
When reassembling, first secure the screws for these holes to position the rear case (506) correctly.
The hole of a left side, the screw tighten the hole of the right side next first.

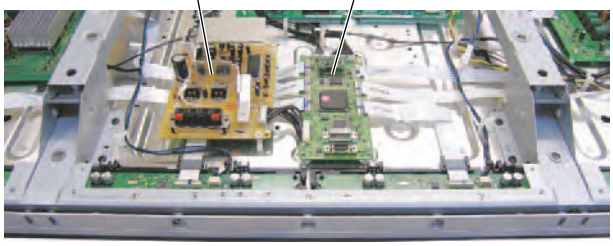
④ Remove the rear case (506).



2 Control Plate Section

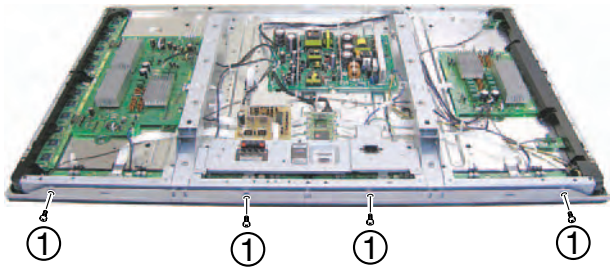
① Remove the two screws.
② Remove the two screws.
③ Remove the two hexagon head screws.
④ Disconnect the connector.
⑤ Remove the three screws.
⑥ Remove the control plate.



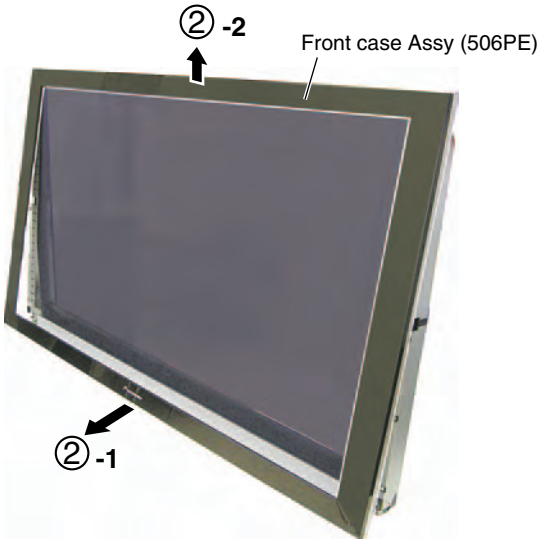


3 Front Case Assy (506PE)

① Remove the four screw rivets.

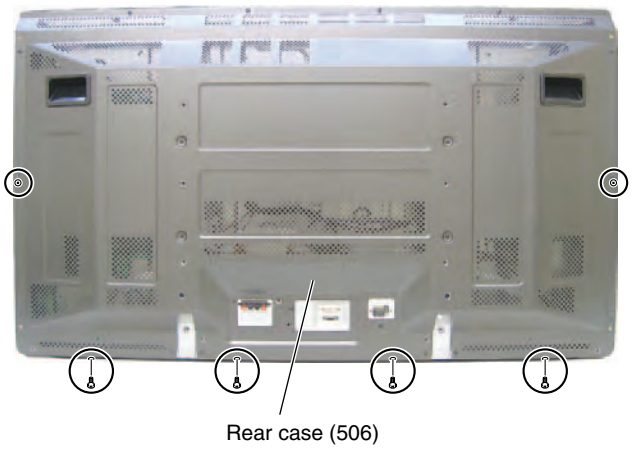


② Remove the front case Assy (506PE).



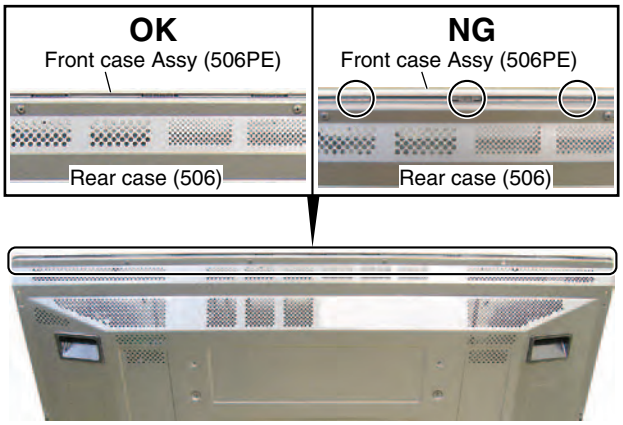
• When only the front case assy (506PE) is to be removed

The front case assy (506PE) can be removed without removing the rear case (506) beforehand.
Remove the two screws and four screw rivets shown below:



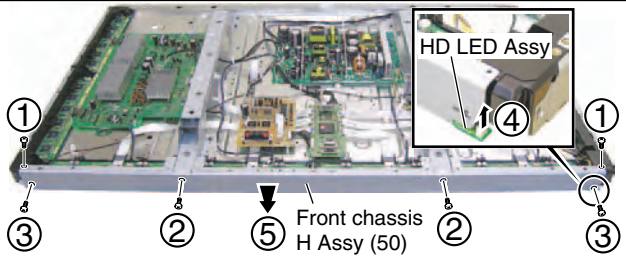
• Note when the front case assy (506PE) is to be reattached

① Hook the upper part of the Front Case Assy (506PE) on the upper part of the Front Panel, leaving a fist-sized gap between the bottom and the lower part of the Front Case Assy.
② Push the couplers of the Front Case Assy (506PE) into the rear case (506).
③ Make sure that all the couplers have been pushed into the rear case (506).



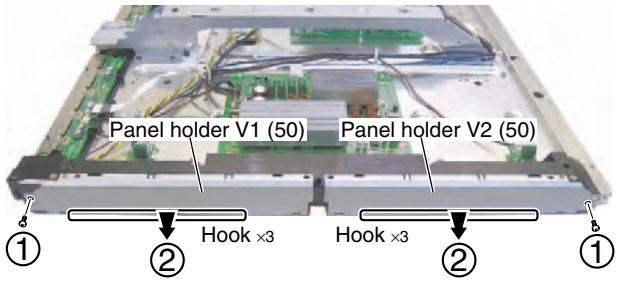
4 Front Chassis H Assy (50)

① Remove the two screws.
② Remove the two screws.
③ Remove the two screws.
④ Disconnect the connector.
⑤ Remove the front chassis H Assy (50).

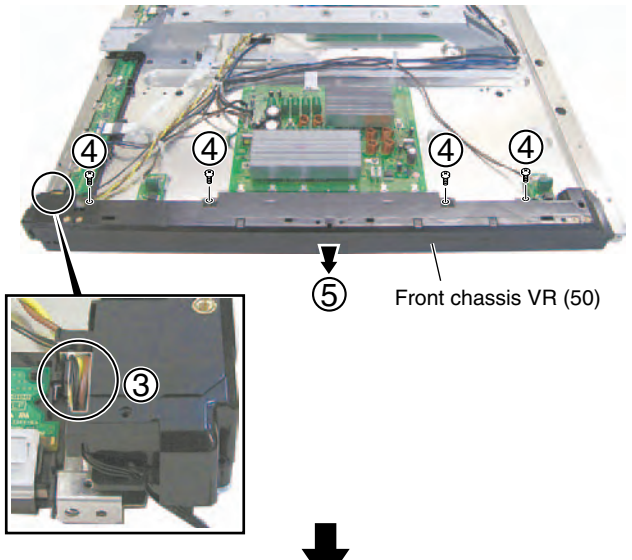


5 SUS CLAMP 1 and 2 Assys

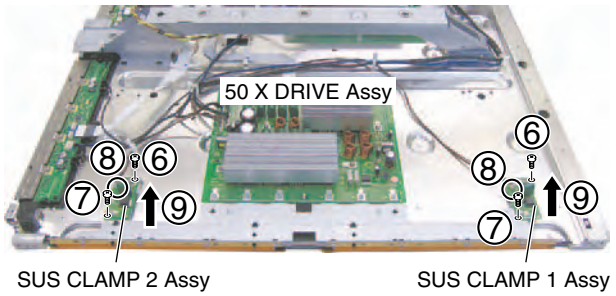
① Remove the two screws.
② Remove the panel holder V1 (50) and V2 (50)s.
(Unhook the six hooks.)



③ Release the housing wire.
④ Remove the four screws.
⑤ Remove the front chassis VR (50).



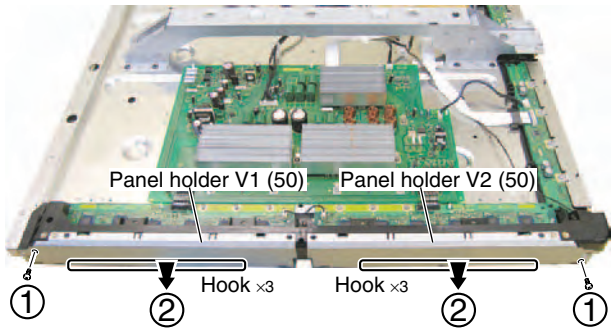
⑥ Remove the two screws.
⑦ Remove the two screws.
⑧ Unhook the two PCB spacers.
⑨ Remove the SUS CLAMP 1 and 2 Assys.



6 50 SCAN A and B Assys

① Remove the two screws.

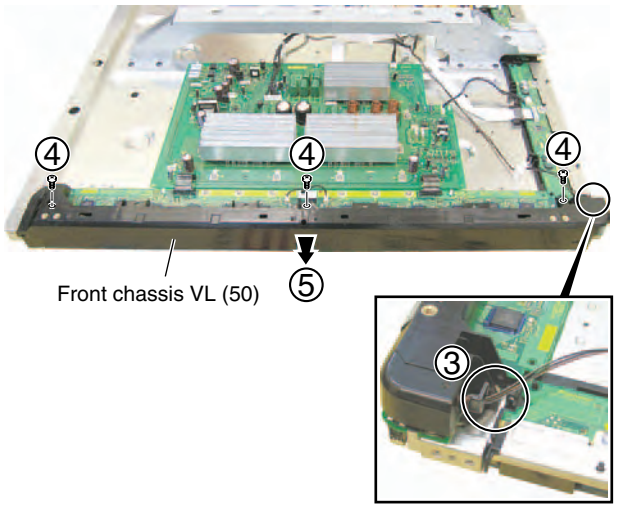
② Remove the panel holder V1 (50) and V2 (50)s.
(Unhook the six hooks.)



③ Release the housing wire.

④ Remove the three screws.

⑤ Remove the front chassis VL (50).

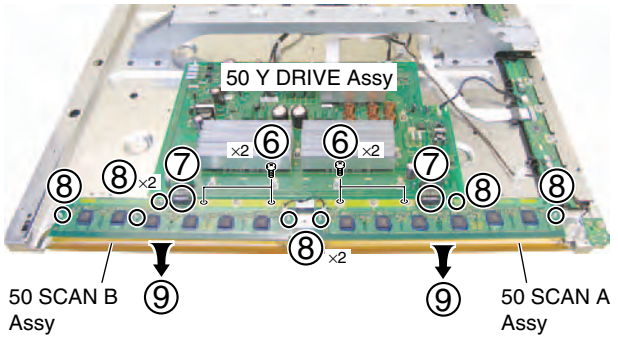


⑥ Remove the four screws.

⑦ Disconnect the two pin connectors.

⑧ Unhook the seven PCB spacers.

⑨ Remove the 50 SCAN A and B Assys.



7.2 IC

• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

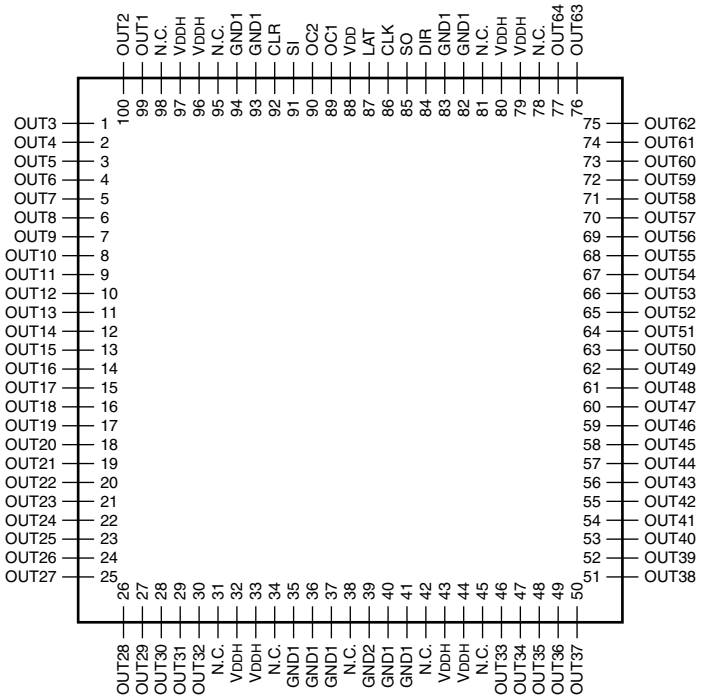
● **List of IC**

AN16025A, TC7SH08FUS1, TC74VHC00FTS1, AXF1140, AXF1142, TC74VHC08FTS1, AXF1141, M62334FP, TC74VHC123AFTS1, PST3610UR, PEG122C, NJW1183L

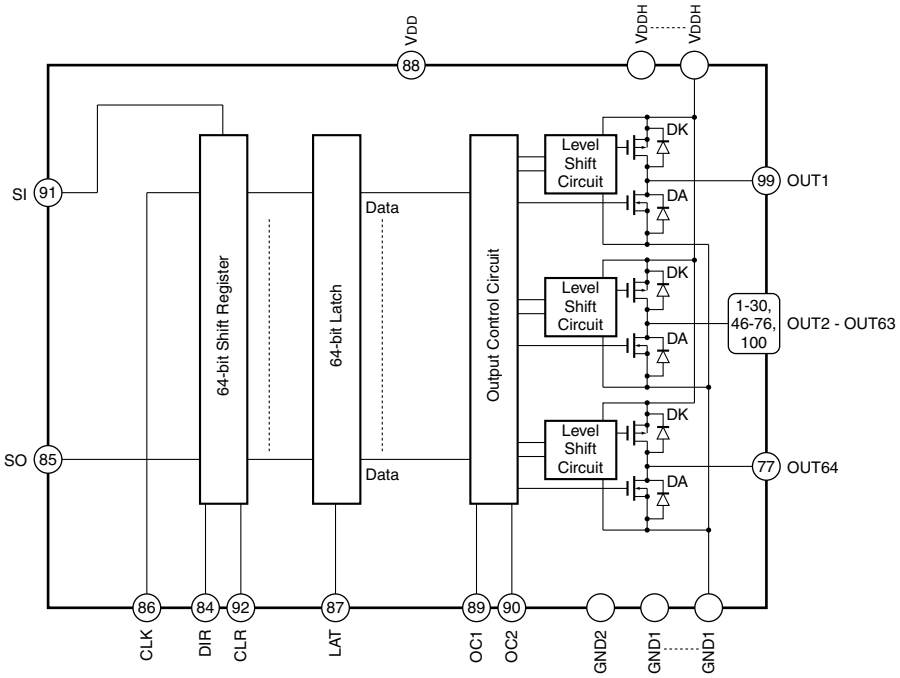
■ AN16025A (50 SCAN A ASSY : IC2701 - IC2706) (50 SCAN B ASSY : IC2801 - IC2806)

• Plasma Display Panel IC

● **Pin Arrangement (Top view)**



● **Block Diagram**



● Pin Function

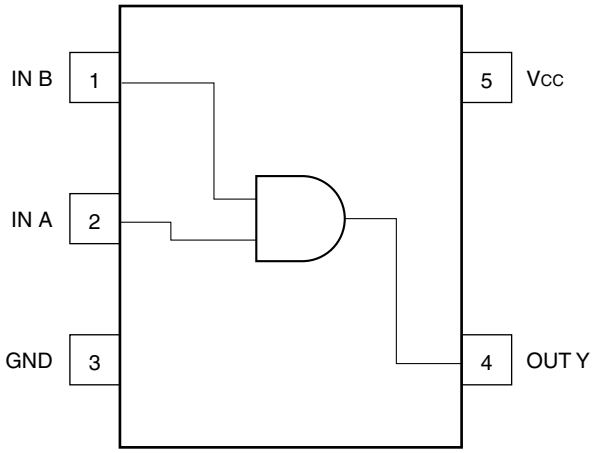
No.	Pin Name	I/O	Pin Function
1 - 30	OUT3 - OUT32	O	High-voltage push-pull output
31	N.C.	–	Not connected
32 - 33	V_{DDH}	–	High-voltage circuit supply
34	N.C.	–	Not connected
35 - 37	GND1	–	Ground
38	N.C.	–	Not connected
39	GND2	–	Ground
40 - 41	GND1	–	Ground
42	N.C.	–	Not connected
43 - 44	V_{DDH}	–	High-voltage circuit supply
45	N.C.	–	Not connected
46 - 77	OUT33 - OUT64	O	High-voltage push-pull output
78	N.C.	–	Not connected
79 - 80	V_{DDH}	–	High-voltage circuit supply
81	N.C.	–	Not connected
82 - 83	GND1	–	Ground
84	DIR	I	Setup of shift register shift direction L = Shift into reverse (SO → SI) H = Shift forward (SI → SO)
85	SO	I/O	Serial data input / output
86	CLK	I	Serial clock input Fetch SI or SO data to shift register by CLK rise edge
87	LAT	I	LAT data input L = Transfer shift register data to output latch H = Hold data to output latch
88	V_{DD}	–	Logic supply
89	OC1	I	Output control Control output according to the right truth value table
90	OC2	I	
91	SI	I/O	Serial data input / output
92	CLR	I	All output reset CLR pin : L → Normal operation CLR pin : H → All output High
93 - 94	GND1	–	Ground
95	N.C.	–	Not connected
96 - 97	V_{DDH}	–	High-voltage circuit supply
98	N.C.	–	Not connected
99 - 100	OUT1 - OUT2	O	High-voltage push-pull output

OC1	OC2	OUT
L	L	ALL Hi-Z
L	H	DATA
H	L	ALL L
H	H	ALL H

■ TC7SH08FUS1 (50 SCAN B ASSY : IC2807)

• 2-input AND Gate

● Pin Arrangement (Top view) / Block Diagram



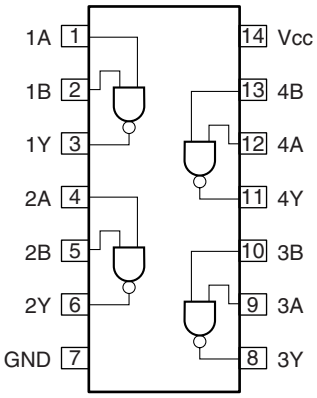
● Truth Table

A	B	Y
L	L	L
L	H	L
H	L	L
H	H	H

■ TC74VHC00FTS1 (50 X DRIVE ASSY : IC1002)

• Quad 2-Input NAND Gate

● Block Diagram



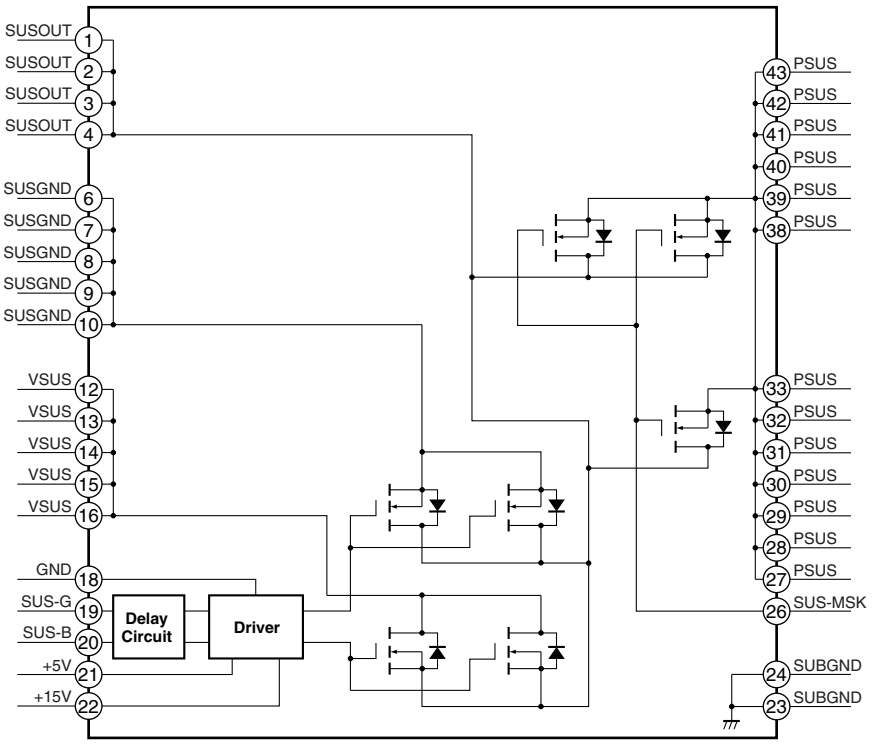
● Truth Table

A	B	Y
L	L	H
L	H	H
H	L	H
H	H	L

■ AXF1140 (50 X DRIVE ASSY : IC1202)

• X Mask Module

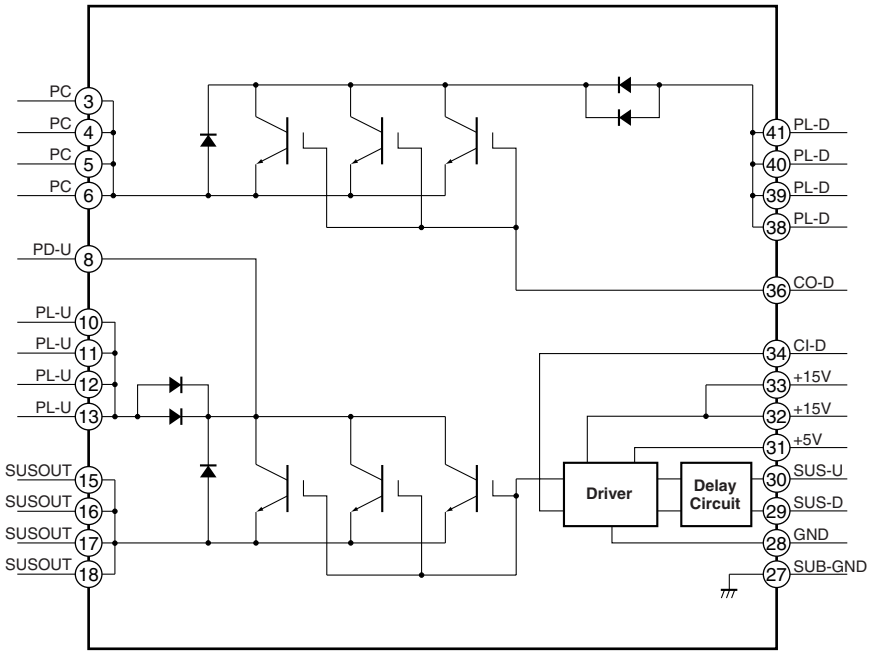
● Block Diagram



■ AXF1142 (50 X DRIVE ASSY : IC1101)
(50 Y DRIVE ASSY : IC2101)

• DK Module

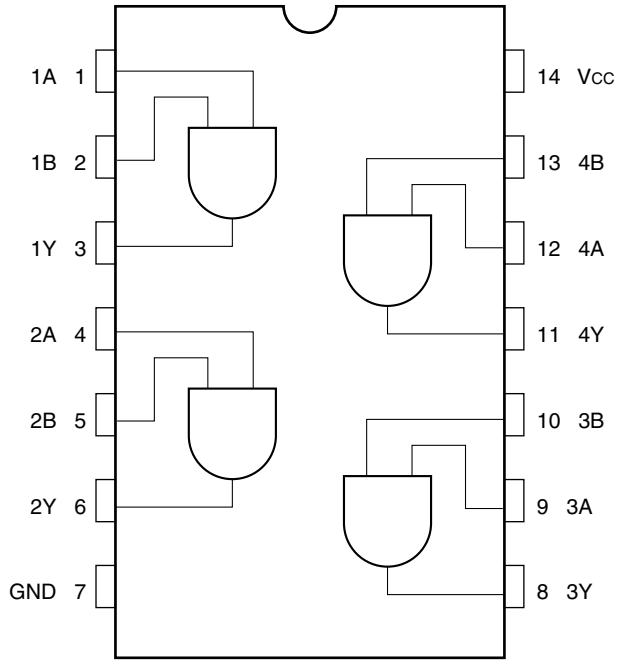
● Block Diagram



■ TC74VHC08FTS1 (50 Y DRIVE ASSY : IC2003, IC2005)

• Quad 2-input AND Gate

● Pin Arrangement (Top view) / Block Diagram



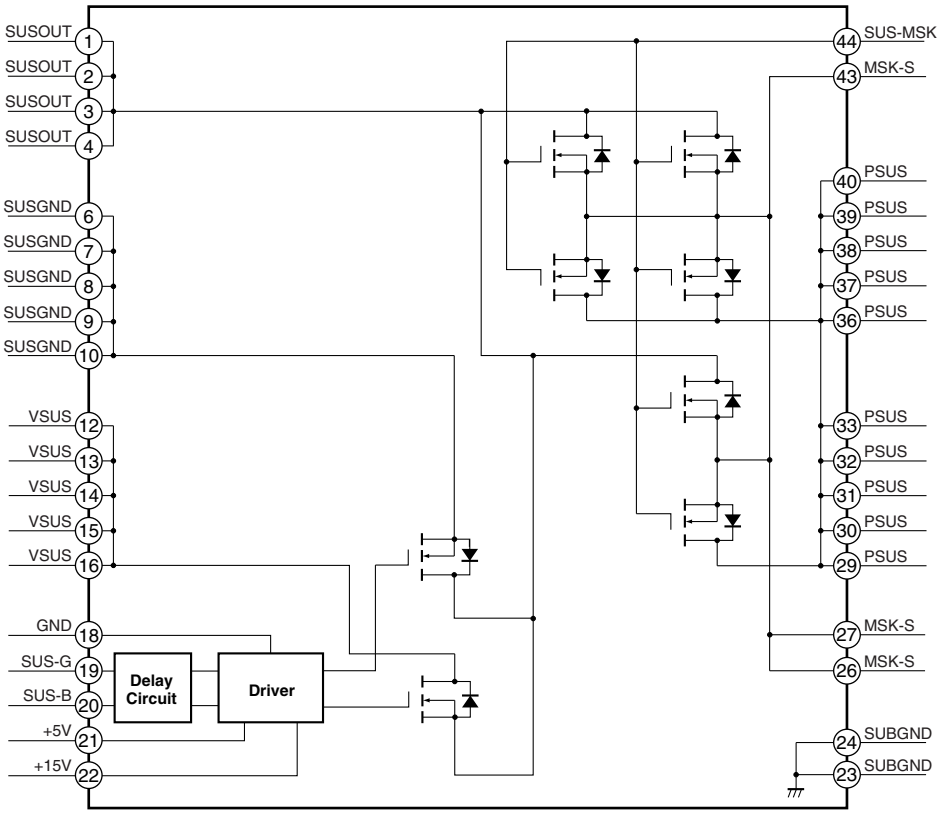
● Truth Table

A	B	Y
L	L	L
L	H	L
H	L	L
H	H	H

■ AXF1141 (50 Y DRIVE ASSY : IC2252, IC2253)

• Y Mask Module

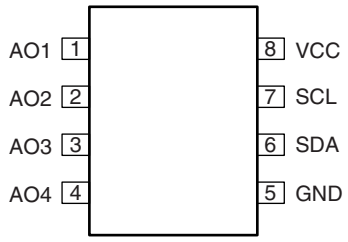
● Block Diagram



■ M62334FP (HD DIGITAL ASSY : IC3157)

• 8-bit 4ch I2C Bus D-A Converter with Buffer Amplifier

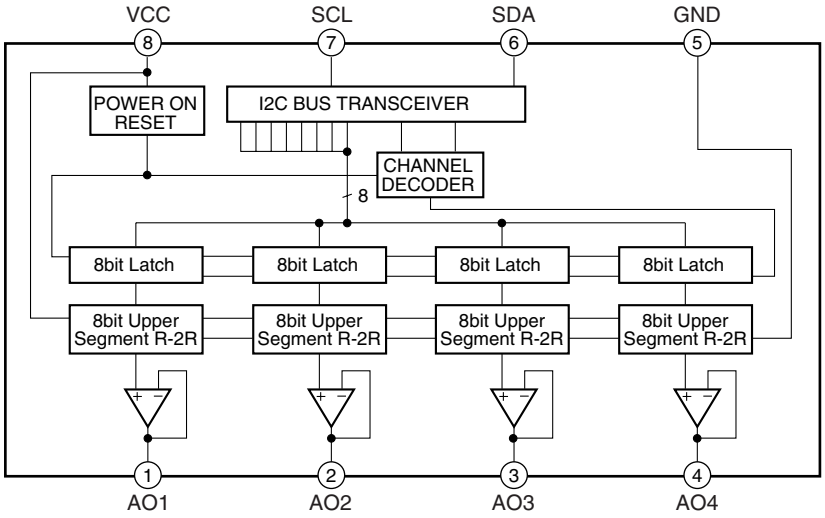
● Pin Arrangement (Top view)



● Pin Function

No.	Pin Name	Pin Function
1	AO1	8-bit resolution D-A converter output
2	AO2	
3	AO3	
4	AO4	
5	GND	Ground
6	SDA	Serial data input
7	SCL	Serial clock input
8	VCC	Power supply

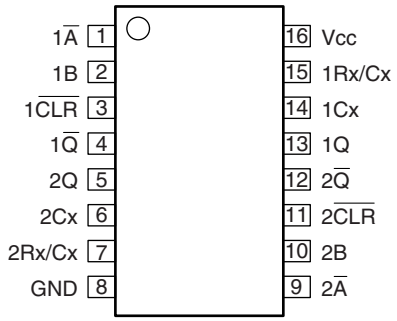
● Block Diagram



■ TC74VHC123AFTS1 (HD DIGITAL ASSY : IC3160)

• Dual Monostable Multivibrator/AFN/AFT Retriggerble

● Pin Arrangement (Top view)



● Truth Table

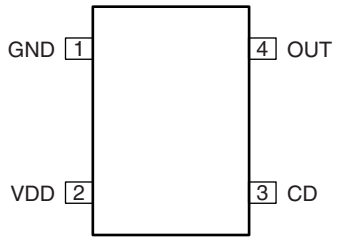
Inputs			Outputs		Note
$\overline{A}$	B	$\overline{CLR}$	Q	$\overline{Q}$	
↓	H	H	⎍	⎍	Output enable
X	L	H	L	H	Inhibit
H	X	H	L	H	Inhibit
L	↑	H	⎍	⎍	Output enable
L	H	↑	⎍	⎍	Output enable
X	X	L	L	H	Reset

X: Don't care

■ PST3610UR (HD DIGITAL ASSY : IC3304)

• Reset IC

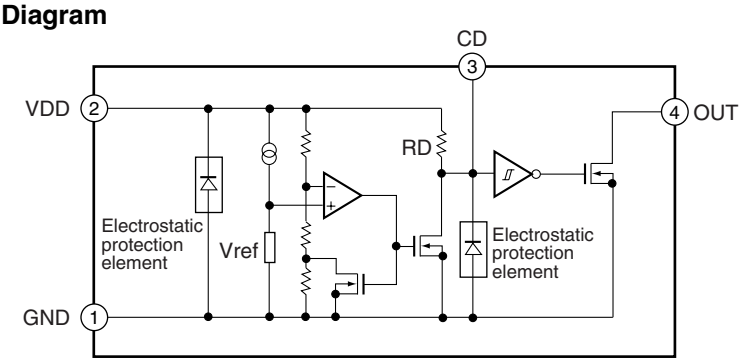
● Pin Arrangement (Top view)



● Pin Function

No.	Pin Name	Pin Function
1	GND	Ground
2	VDD	Power supply / Voltage detection
3	CD	Capacitor connect pin for delay
4	OUT	Reset signal output

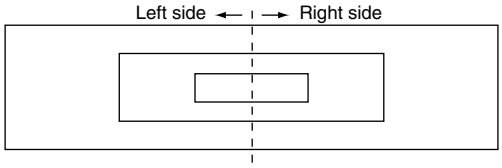
● Block Diagram



■ PEG122C (HD DIGITAL ASSY : IC3401)

• LSI for PDP video processing (SEQUENCE PROCESSOR)

● Pin Arrangement (Top view)



● Left side (Top view)

	1	2	3	4	5	6	7	8	9	10	11	12	13	
A	BAI5	GAI1	GAI4	GAI9	RAI4	RAI9	BBI0	BBI6	GBI1	GBI5	RBI1	RBI7	TRNSEND1	A
B	BAI4	GAI0	GND33	GAI8	RAI3	RAI8	HDI	BBI5	GBI0	GDN33	RBI0	RBI6	TRNSEND0	B
C	BAI3	BAI9	VDD33	GAI7	RAI2	RAI7	VDI	BBI4	BBI9	VDD33	GBI9	RBI5	VDD33	C
D	BAI2	BAI8	GAI3	GAI6	RAI1	RAI6	DEI	BBI3	BBI8	GBI4	GBI8	RBI4	RBI9	D
E	BAI1	BAI7	GAI2	GAI5	RAI0	RAI5	DCLKI	BBI2	BBI7	GBI3	GBI7	RBI3	RBI8	E
F	BAI0	BAI6	PEAK	APLDT	THEATER	GND12	VDD12	BBI1	VDD12	GBI2	GBI6	RBI2	VDD12	F
G	XSCAN20	XSCAN19	XSCAN18	XSCAN17	XSCAN16	VDD12								G
H	XSCAN15	XSCAN14	XSCAN13	XSCAN12	XSCAN11	VDDTC12								H
J	XSCAN10	GND33	VDD33	XSCAN9	GNDTC12	VDD12								J
K	XSCAN8	XSCAN7	XSCAN6	XSCAN5	XSCAN4	VDDTC12								K
L	XSCAN3	XSCAN2	XSCAN1	XSCAN0	GND12	VDD12					GND12	GND12	GND12	L
M	XSUS10	XSUS9	XSUS8	XSUS7	GNDTC12	VDD12					GND12	GND12	GND12	M
N	XSUS6	GND33	VDD33	XSUS5	GND12	VDD12					GND12	GND12	GND12	N
P	XSUS4	XSUS3	XSUS2	XSUS1	XSUS0	VDDTC12					GND12	GND12	GND12	P
R	ADRS0	ADRS1	ADRS2	ADRS3	GNDTC12	VDD12					GND12	GND12	GND12	R
T	TEST_I0	GND33	VDD33	TEST_I1	TEST_I2	TEST_R					GND12	GND12	GND12	T
U	TXOUTM063	TXOUTP063	GNDLA	VDDLA	GNDLA	VDDL12								U
V	TXCLKOUTM06	TXCLKOUTP06	GNDLA	VDDLA	GNDLA	VDDLA								V
W	TXOUTM062	TXOUTP062	GNDLA	VDDLA	GNDLA	VDDLA								W
Y	TXOUTM061	TXOUTP061	GNDLA	VDDLA	GNDLA	VDDL12								Y
AA	TXOUTM060	TXOUTP060	GNDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDL12	VDDLA	VDDLA	VDDL12	VDDLA	VDDLA	AA
AB	TXOUTM073	TXOUTP073	GNDLA	VDDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	VDDBG	REFIN	AB
AC	TXCLKOUTM07	TXCLKOUTP07	GNDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	AC
AD	TXOUTM072	TXOUTP072	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	AD
AE	TXOUTM071	TXOUTP071	GNDLA	TXOUTP033	TXCLKOUTP03	TXOUTP032	TXOUTP031	TXOUTP030	TXOUTP023	TXCLKOUTP02	TXOUTP022	TXOUTP021	TXOUTP020	AE
AF	TXOUTM070	TXOUTP070	GNDLA	TXOUTM033	TXCLKOUTM03	TXOUTM032	TXOUTM031	TXOUTM030	TXOUTM023	TXCLKOUTM02	TXOUTM022	TXOUTM021	TXOUTM020	AF

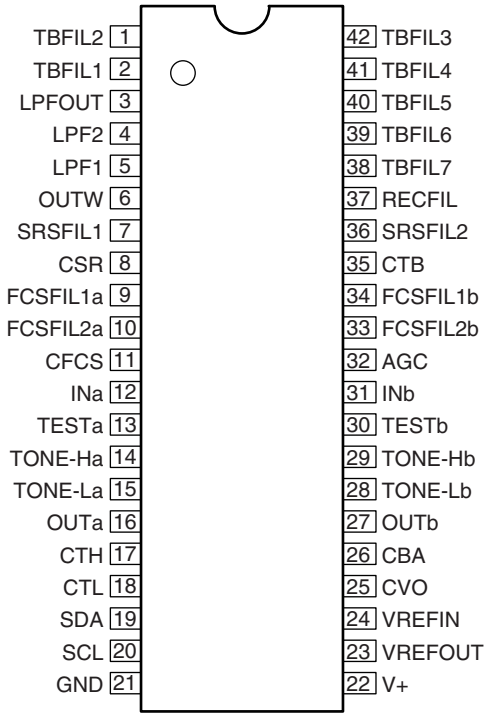
● Right side (Top view)

	14	15	16	17	18	19	20	21	22	23	24	25	26	
A	CLKD	VSSPA	EXDI011	EXDI09	EXA4	EXA10	EXA2	EXA16	EXA20	CSCS_N1	CSCS_N2	CSIOSCK1	CSIORXD	A
B	CSRD_N	VCCPA	EXDI04	GND33	EXA3	EXA9	EXA1	EXA15	EXA19	CSCS_N0	GND33	TCRAM_MONITOR0	TCRAM_MONITOR1	B
C	CLKS	CLK_MONI	EXDI012	VDD33	EXDI00	EXA8	CSWR_N	EXA14	EXA18	UARTRXD	VDD33	TCRAM_MONITOR2	CSIORQ	C
D	VSSPB	EXDI014	EXDI05	EXDI02	EXDI08	EXA7	EXA0	EXA13	EXA17	UARTTXD	CS10TXD	RESETX	SDIJTAG	D
E	VCCPB	EXDI07	EXDI013	EXDI010	EXDI01	EXA6	EXA11	EXA12	CSEXWAIT_N	SDITRST_N	SDITCK	SDIDBI_N	SDITMS	E
F	LPFMONI	EXDI015	EXDI06	EXDI03	VDD12	EXA5	VDD12	GND12	SDITDO	SDITDI	GPI000	GPI001	GPI002	F
G								VDD12	GPI003	GPI004	GPI005	GPI006	GPI007	G
H								VDDTC12	YSCAN20	YSCAN19	YSCAN18	YSCAN17	YSCAN16	H
J								VDD12	GNDTC12	YSCAN15	VDD33	GND33	YSCAN14	J
K								VDDTC12	YSCAN13	YSCAN12	YSCAN11	YSCAN10	YSCAN9	K
L	GND12	GND12	GND12					VDD12	GND12	YSCAN8	YSCAN7	YSCAN6	YSCAN5	L
M	GND12	GND12	GND12					VDD12	GNDTC12	YSCAN4	YSCAN3	YSCAN2	YSCAN1	M
N	GND12	GND12	GND12					VDD12	GND12	YSCAN0	VDD33	GND33	VSUS10	N
P	GND12	GND12	GND12					VDDTC12	YSUS9	YSUS8	YSUS7	YSUS6	VSUS5	P
R	GND12	GND12	GND12					VDD12	GNDTC12	YSUS4	YSUS3	YSUS2	VSUS1	R
T	GND12	GND12	GND12					YSUS0	RSV1	RSV0	VDD33	GND33	AFE_PS_N	T
U								VDDL12	GNDLA	VDDLA	GNDLA	TXOUTP050	TXOUTM050	U
V								VDDLA	GNDLA	VDDLA	GNDLA	TXOUTP051	TXOUTM051	V
W								VDDLA	GNDLA	VDDLA	GNDLA	TXOUTP052	TXOUTM052	W
Y								VDDL12	GNDLA	VDDLA	GNDLA	TXCLKOUTP05	TXCLKOUTM05	Y
AA	VDDLA	VDDLA	VDDL12	VDDLA	VDDLA	VDDL12	VDDLA	VDDLA	VDDLA	VDDLA	GNDLA	TXOUTP053	TXOUTM053	AA
AB	VREF12	GNDBG	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	VDDLA	GNDLA	TXOUTP040	TXOUTM040	AB
AC	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	GNDLA	TXOUTP041	TXOUTM041	AC
AD	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	TXOUTP042	TXOUTM042	AD
AE	TXOUTP013	TXCLKOUTP01	TXOUTP012	TXOUTP011	TXOUTP010	TXOUTP003	TXCLKOUTP00	TXOUTP002	TXOUTP001	TXOUTP000	GNDLA	TXCLKOUTP04	TXCLKOUTM04	AE
AF	TXOUTM013	TXCLKOUTM01	TXOUTM012	TXOUTM011	TXOUTM010	TXOUTM003	TXCLKOUTM00	TXOUTM002	TXOUTM001	TXOUTM000	GNDLA	TXOUTP043	TXOUTM043	AF

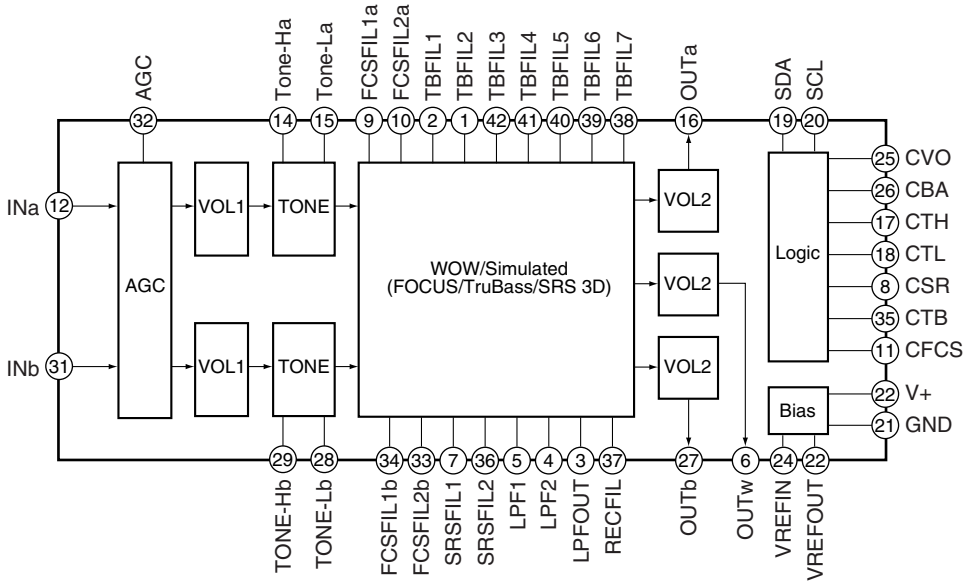
■ NJW1183L (HD AUDIO ASSY : IC3753)

• FOCUS & SRS IC

● Pin Arrangement (Top view)

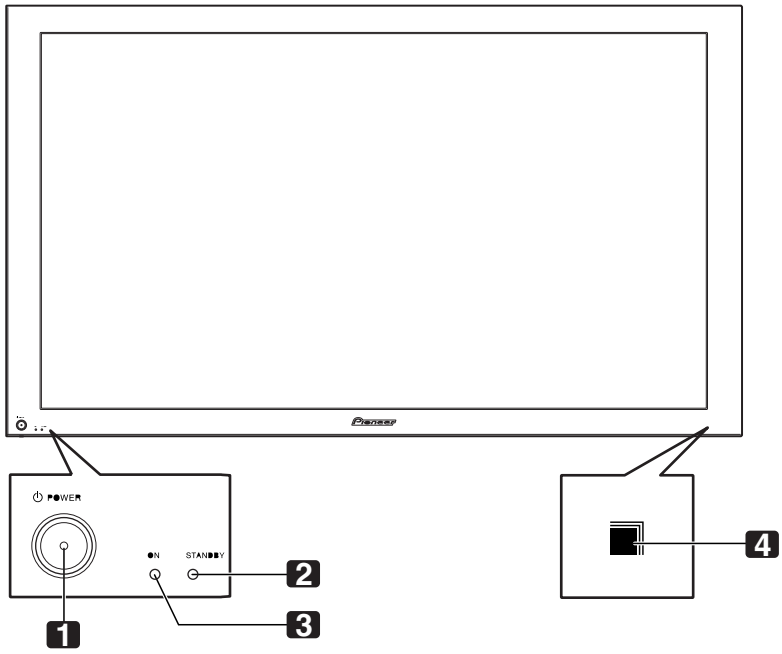


● Block Diagram



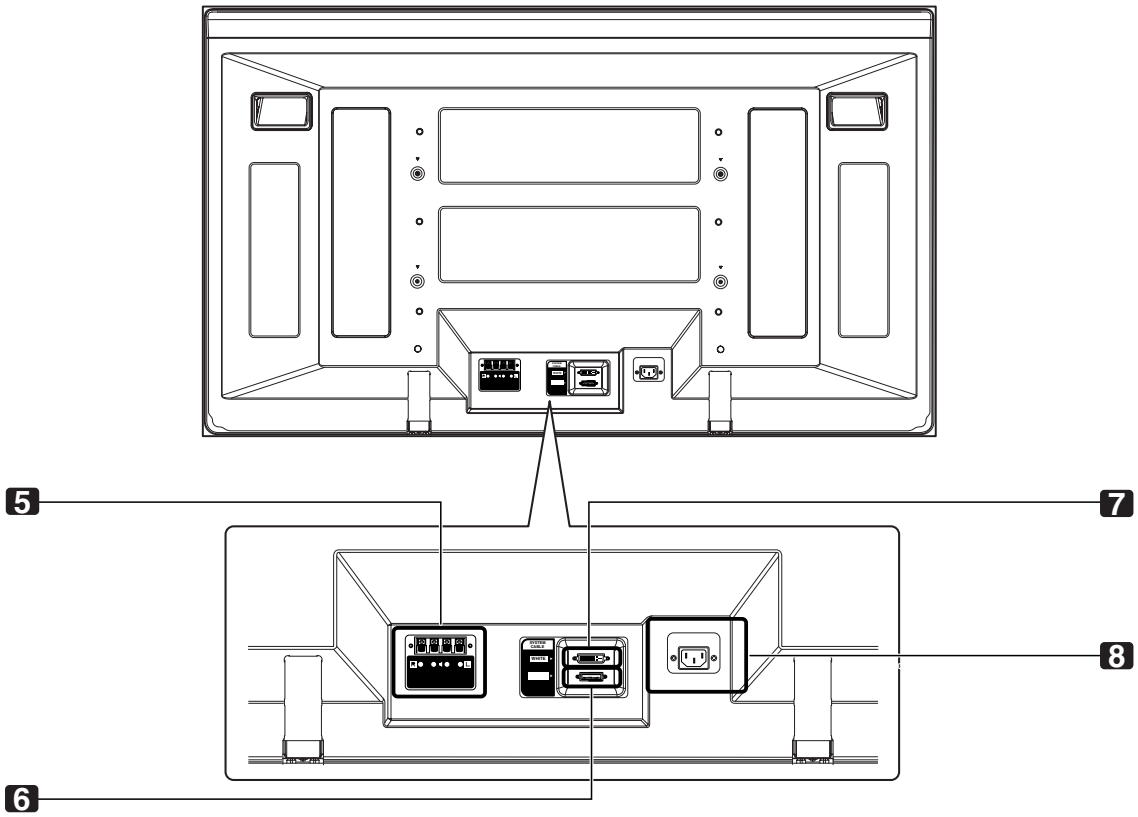
8. PANEL FACILITIES

Front view



1 **POWER** button
2 STANDBY indicator
3 POWER ON indicator
4 Remote control sensor

Rear view



5 SPEAKER (right/left) terminals
6 SYSTEM CABLE terminal (BLACK)
7 SYSTEM CABLE terminal (WHITE)
8 AC IN terminal

A

B

C

D

E

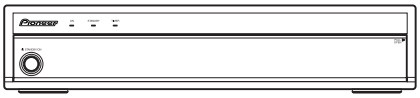
F

■ Jigs list

Jig No.	Jig Name	Remarks
GGF1475	Special Communication Device	See to "6.2 RS-232C COMMAND".

Pioneer sound.vision.soul

Service Manual



PDP-R06G

ORDER NO.
ARP3281

MEDIA RECEIVER

PDP-R06G
PDP-R06C

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
PDP-R06G	TLDFXJ	AC 110V - 240V	
PDP-R06C	WAXU5	AC 220V - 240V	



For details, refer to "Important Check Points for good servicing".

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ⓒ**PIONEER CORPORATION 2005**

T-IZR SEPT. 2005 printed in Japan

SAFETY INFORMATION

This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 - Proposition 65

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

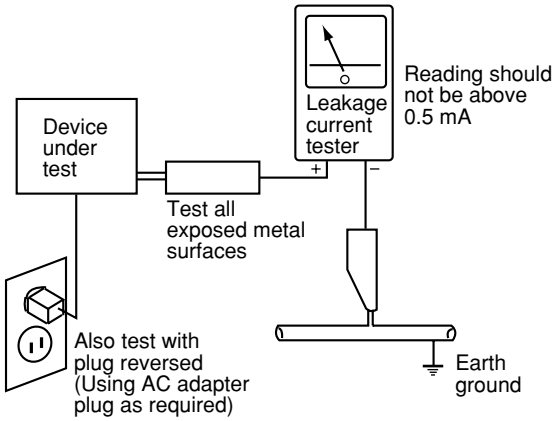
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol.
Please be sure to confirm and follow these procedures.

1. Product safety



Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification(addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris.
Soldering should be finished with the proper quantity. (Refer to the example)

④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs.
In addition, be sure that there are no pinched wires, etc.

⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages.
If you find a damaged power cord, please exchange it with a suitable one.

⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries.
Please pay attention to your surroundings and repair safely.

2. Adjustments



To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification.
Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts



Use grease and adhesives that are equal to the specified substance.
Make sure the proper amount is applied.

4. Cleaning



For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

5. Shipping mode and Shipping screws



To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

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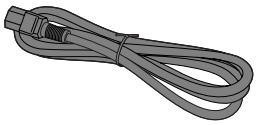
1. SPECIFICATIONS

Item			Media Receiver, Model: PDP-R06G
Color System			PAL/SECAM/NTSC/4.43NTSC/PAL-M/PAL-N
TV Function	Receiving System		PAL: B/G, D/K, I M, N SECAM: B/G, D/K NTSC: M 4.43NTSC : M
	Tuner	VHF/UHF	44.25-863.25 MHz
		CATV	Hyper-band, S1-S41ch
	Auto Channel Preset		99 ch (Normal), 68 ch (Air, US type), 125 ch (Cable, US type), Auto Preset
	Audio multiplex		NICAM/A2/BTSC System
Terminals	Rear	INPUT 1	COMPONENT VIDEO in, S-VIDEO in, AV in
		INPUT 2	COMPONENT VIDEO in, S-VIDEO in, AV in
		INPUT 3	S-VIDEO in, AV in, HDMI in*
		Antenna	75 Ω Din Type for VHF/UHF in
	Front	INPUT 4	S-VIDEO, AV in (Audio input is shared with PC INPUT.)
		PC	Analog RGB in
MONITOR OUT Terminal (Rear)			AV out
PHONES OUTPUT Terminal (Front)			16 - 32 Ω recommended
SUB WOOFER OUTPUT Terminal (Rear)			Variable
Power Requirement			110 - 240 V(PDP-R06G), 220 - 240V(PDP-R06C) , 50/60 Hz, 16 W (0.4 W Standby)
Dimensions			420 (W) × 90 (H) × 299 (D) mm
Weight			3.4 kg

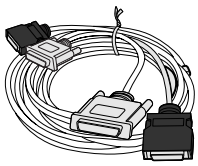
∗ **:** This conforms to HDMI1.1 and HDCP1.1.
HDMI (High Definition Multimedia Interface) is a digital interface that handles both video and audio using a single cable.
HDCP (High-bandwidth Digital Content Protection) is a technology used to protect copyrighted digital contents that use the Digital Visual Interface (DVI).

● Design and specifications are subject to change without notice.

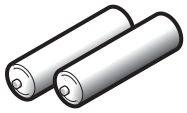
Accessories



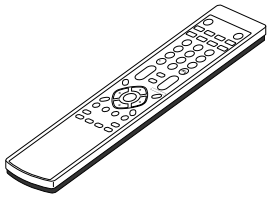
Power cord
(ADG1209: PDP-R06C)



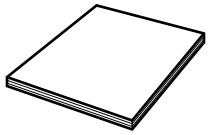
System cable (3 m)
(ADF1027)



AA size Battery ×2
(VEM1031: PDP-R06G)
(VEM1010: PDP-R06C)



Remote control unit
(AXD1510: PDP-R06G)
(AXD1511: PDP-R06C)

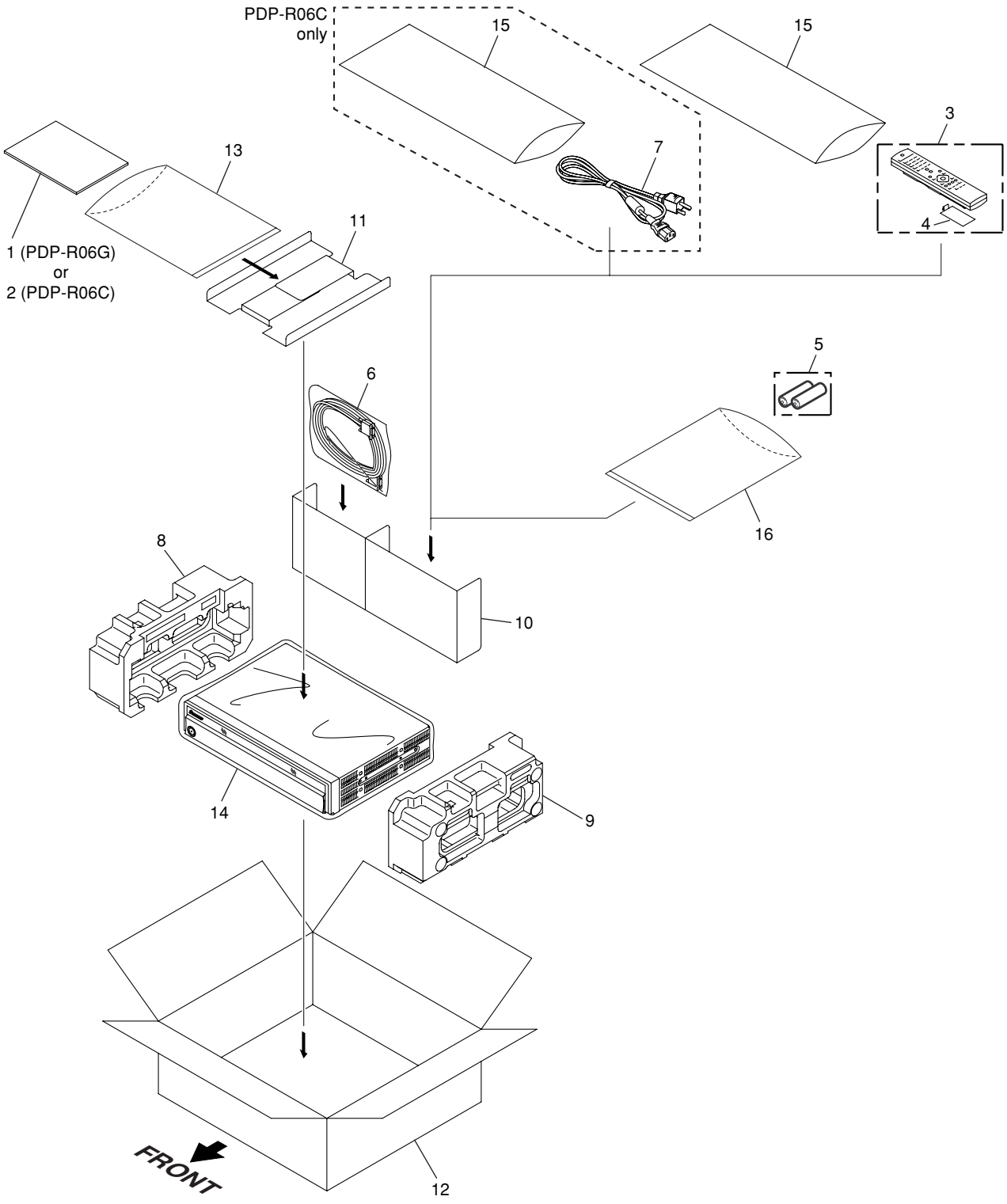


Operating instructions

2. EXPLODED VIEWS AND PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent to ▼ mark on product are used for disassembly.*
- *For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)*

2.1 PACKING SECTION



(1) PACKING SECTION PARTS LIST

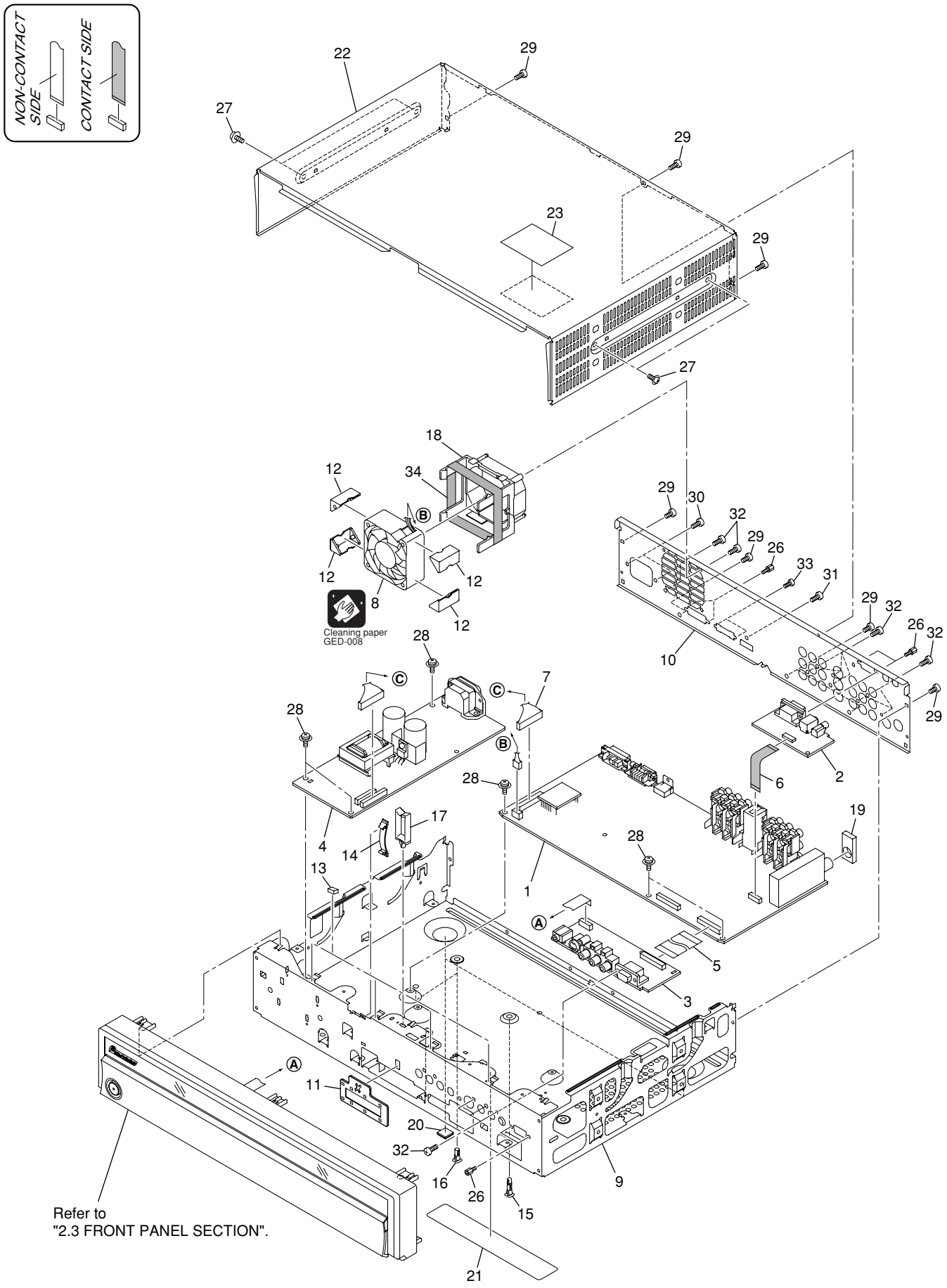
Mark	No.	Description	Part No.
	1	Operating Instructions (English, Chinese, Spanish, Portuguese)	See Contrast table (2)
	2	Operating Instructions (Chinese)	See Contrast table (2)
	3	Remote Control Unit	See Contrast table (2)
	4	Battery Cover	AZA7424
NSP	5	Dry Cell Battery (R6P, AA)	See Contrast table (2)
	6	System Cable (3m)	ADF1027
⚠	7	Power Cord	See Contrast table (2)
	8	Pad L	See Contrast table (2)
	9	Pad R	See Contrast table (2)
	10	Accessory Carton	See Contrast table (2)
	11	Manual Case	See Contrast table (2)
	12	Carton	See Contrast table (2)
NSP	13	Catalogue Bag	See Contrast table (2)
	14	Laminate Sheet	AHG1350
	15	Air Cap Bag	See Contrast table (2)
NSP	16	Catalogue Bag	See Contrast table (2)

(2) CONTRAST TABLE

PDP-R06G/TLDFXJ and PDP-R06C/WAXU5 are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-R06G/TLDFXJ	PDP-R06C/WAXU5
	1	Operating Instructions (English, Chinese, Spanish, Portuguese)	ARE1398	Not used
	2	Operating Instructions (Chinese)	Not used	ARC1545
	3	Remote Control Unit	AXD1510	AXD1511
NSP	5	Dry Cell Battery (R6P, AA)	VEM1031	VEM1010
⚠	7	Power Cord	Not used	ADG1209
	8	Pad L	AHA2447	AHA2449
	9	Pad R	AHA2448	AHA2450
	10	Accessory Carton M	AHD3423	Not used
	10	Accessory Carton C	Not used	AHD3361
	11	Manual Case	AHD3428	AHD3429
	12	Carton G	AHD3449	Not used
	12	Carton C	Not used	AHD3363
NSP	13	Catalogue Bag	AHG1340	AHG1360
	15	Air Cap Bag	AHG1351	AHG1359
NSP	16	Catalogue Bag	AHG1374	AHG1360

2.2 EXTERIOR SECTION



(1) EXTERIOR SECTION PARTS LIST

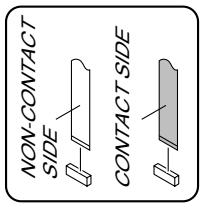
Mark	No.	Description	Part No.
	1	MR MAIN Assy	See Contrast table (2)
	2	SR Assy	AWW1037
	3	FRONT Assy	AWW1051
⚠	4	POWER SUPPLY Unit	AXY1114
	5	Flexible Cable (J201)	See Contrast table (2)
	6	Flexible Cable (J208)	See Contrast table (2)
	7	16P Housing Wire (J101)	See Contrast table (2)
⚠	8	Fan Motor (60 x 25L)	AXM1045
	9	Base Chassis	See Contrast table (2)
	10	Terminal Panel	See Contrast table (2)
⚠	11	Shield Plate	ANG2838
	12	Floating Rubber 60	AEB1410
	13	Front Panel Spacer	AEB1429
	14	Flat Clamp	AEC1858
	15	Circuit Board Spacer	AEC1969
	16	Circuit Board Spacer	AEC2028
	17	Re-used Wire Saddle	AEC2038
	18	Fan Holder 60	AMR3451
⚠	19	Gasket M	ANK1774
	20	Rubber Foot	VEB1349
	21	Bottom Cover	See Contrast table (2)
	22	Metal Bonnet	See Contrast table (2)
	23	Caution Label (C)	See Contrast table (2)
	24	• • • • •	
	25	• • • • •	
	26	Hex Head Screw	BBA1051
	27	Screw	ABZ30P060FTC
	28	Screw	BBB30P080FTC
	29	Screw	BBZ30P060FTB
	30	Screw	BBZ30P100FTC
	31	Screw	BMZ30P060FTC
	32	Screw	BPZ30P080FTB
	33	Screw	PMZ26P060FTB
	34	TERAOKA No.570F 16mm(W)	GYH1001

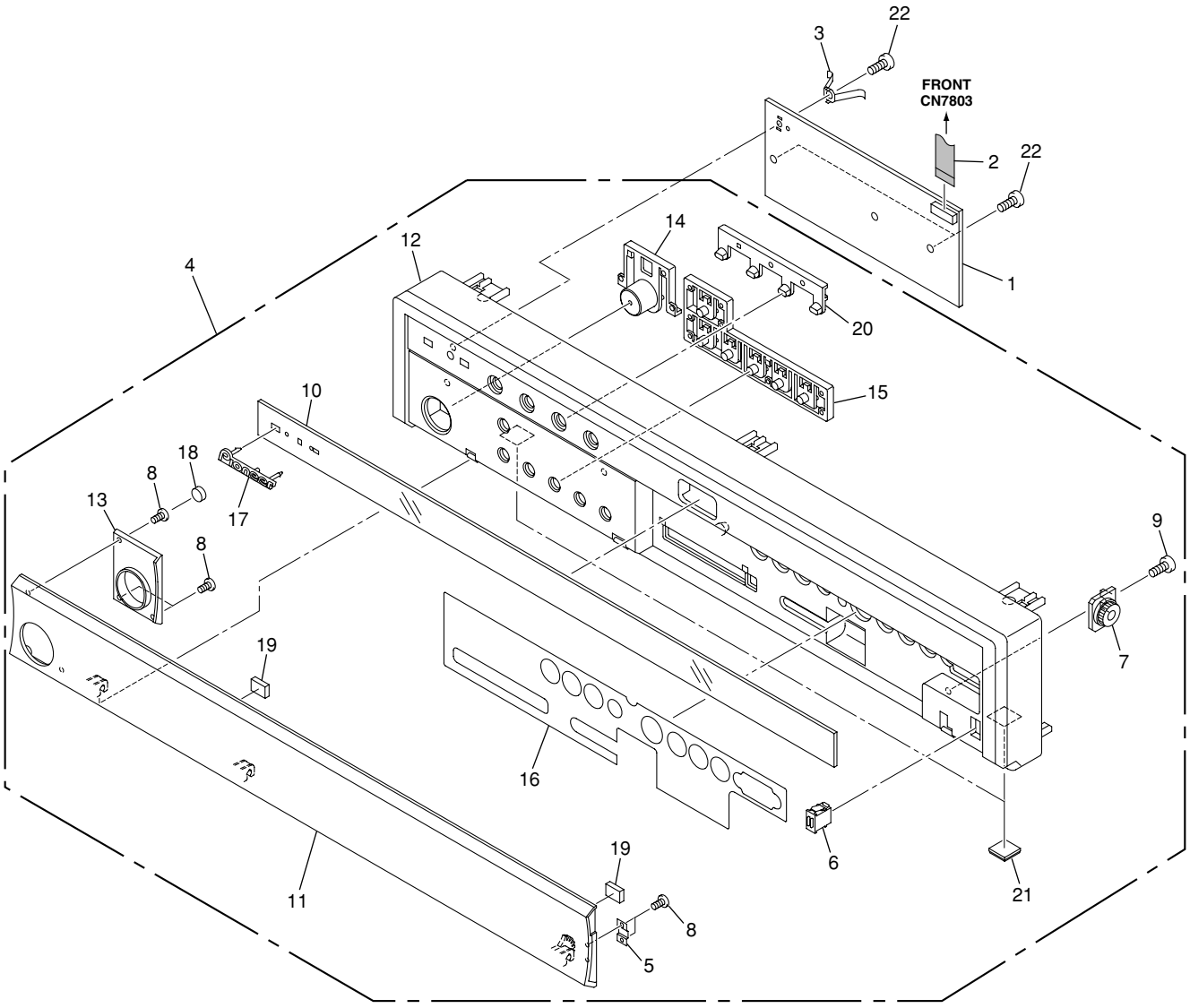
(2) CONTRAST TABLE

PDP-R06G/TLDFXJ and PDP-R06C/WAXU5 are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-R06G/TLDFXJ	PDP-R06C/WAXU5
	1	MR MAIN Assy	AWV2232	AWV2234
	5	Flexible Cable (J201)	ADD1311	ADD1318
	6	Flexible Cable (J208)	ADD1328	ADD1320
	7	16P Housing Wire (J101)	ADX3140	ADX3147
	9	Base Chassis	ANA1872	Not used
	9	Base Chassis (J)	Not used	ANA1891
	10	Terminal Panel G	ANC2379	Not used
	10	Terminal Panel C	Not used	ANC2380
	21	Bottom Cover (G)	AAX3221	Not used
	21	Bottom Cover (C)	Not used	AAX3222
	22	Metal Bonnet	ANE1653	ANE1644
	23	Caution Label (C)	Not used	AAX3220

2.3 FRONT PANEL SECTION





(1) FRONT PANEL SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	LED Assy	AWW1043
	2	Flexible Cable (J207)	See Contrast table (2)
⚠	3	Earth Metal	BNG1336
	4	Front Panel Assy	See Contrast table (2)
	5	Magnet Catcher	ANG2820
	6	Magnet Holder Assy	AEC1077
	7	Gear Damper	AXA1019
	8	Screw (2 x 3.5)	ABA1329
	9	Screw	BPZ30P080FTB
	10	Indicator Panel	See Contrast table (2)
	11	Door (GC)	AAN1486
	12	Front Panel	AMB2863
	13	Escutcheon Ring	AAD4134
NSP	14	Power Button	AAD4135
NSP	15	Operation Button	AAD4136
	16	Sealing Sheet (G)	AAL2669
	17	Pioneer Name Plate	AAM1107
	18	Door Cushion	AEB1412
	19	Door Cushion S	AEB1425
NSP	20	LED Lens	AMR3452
	21	Rubber Foot	VEB1349
	22	Screw	BPZ30P080FTB

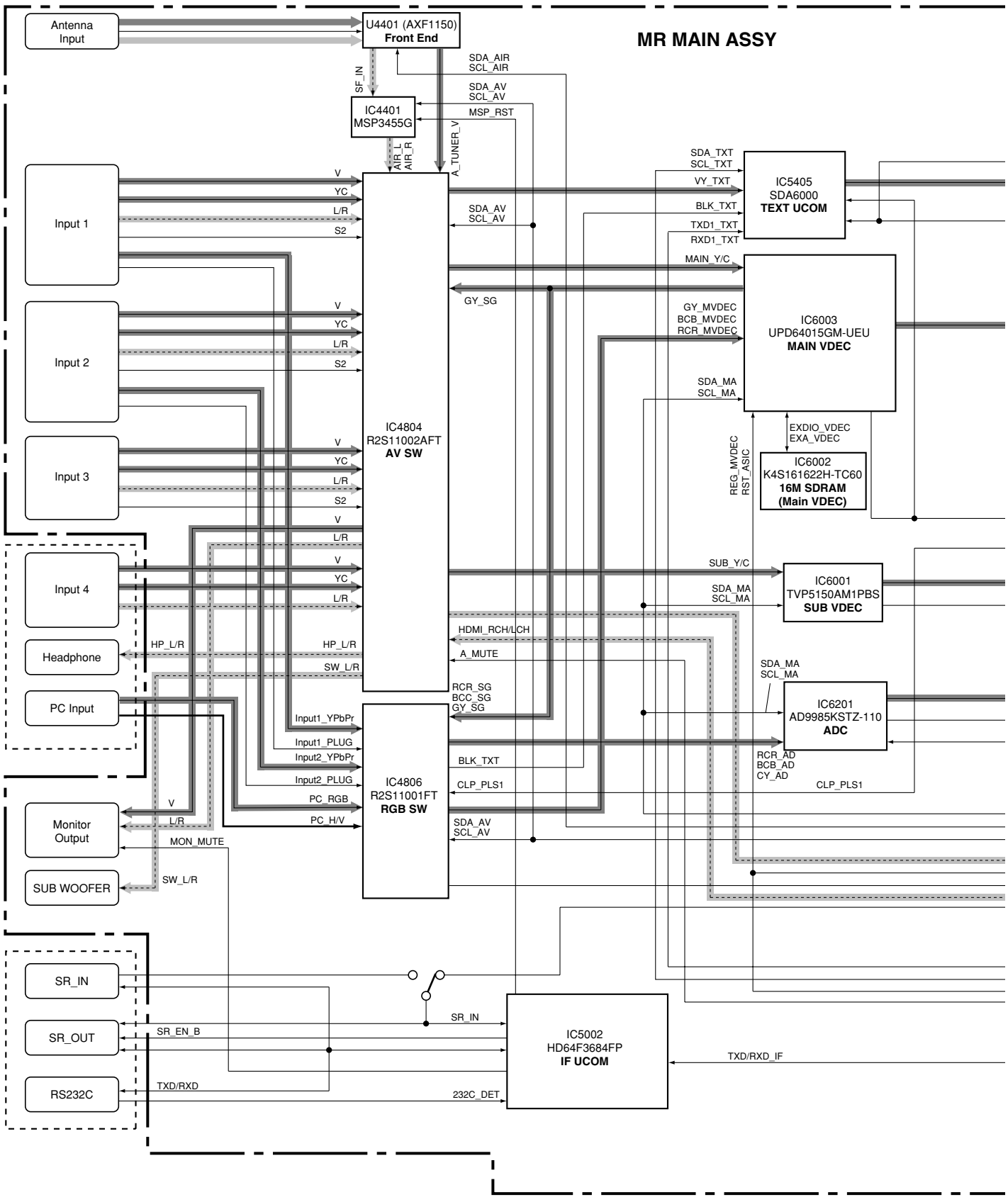
(2) CONTRAST TABLE

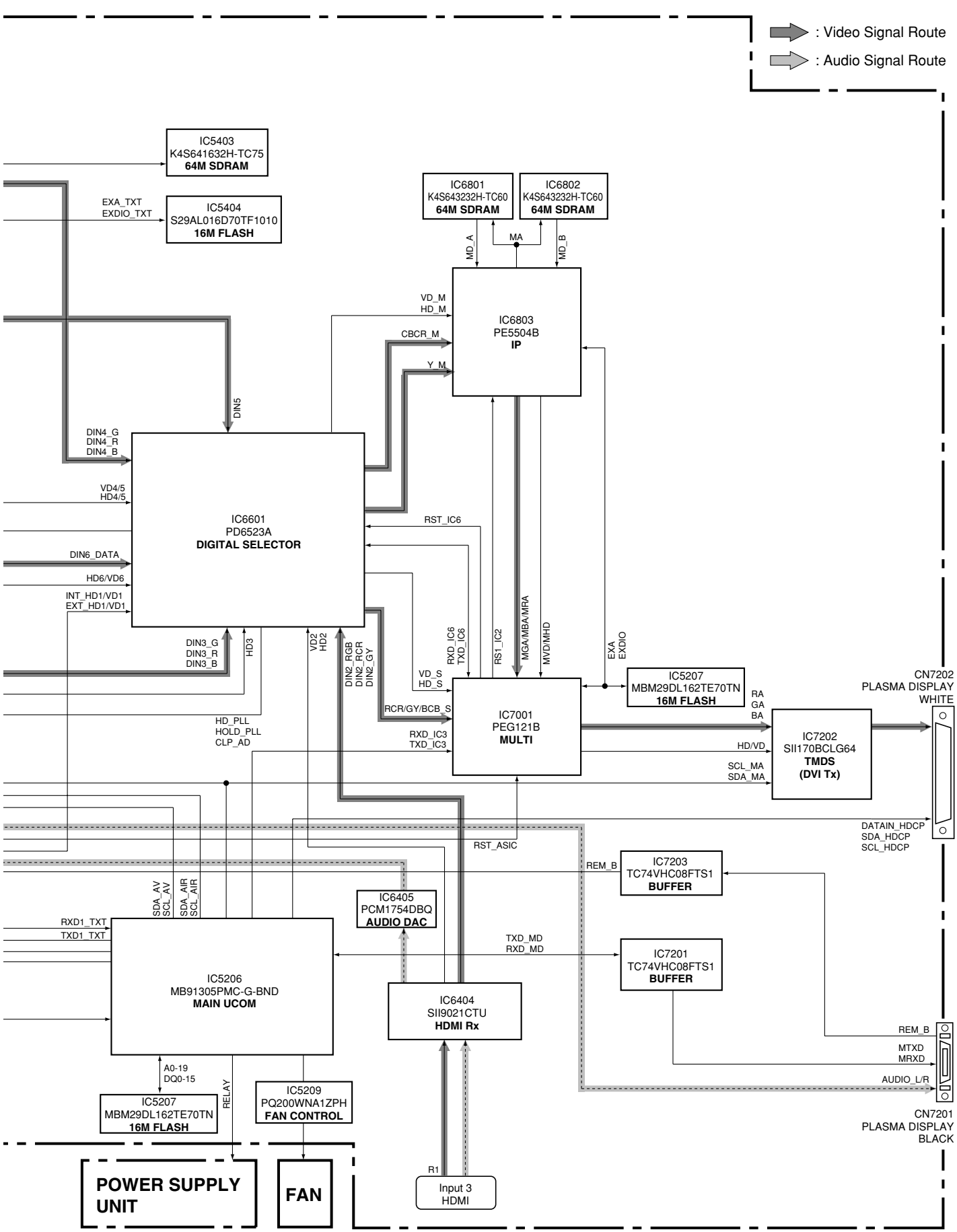
PDP-R06G/TLDFXJ and PDP-R06C/WAXU5 are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-R06G/TLDFXJ	PDP-R06C/WAXU5
	2	Flexible Cable (J207)	ADD1314	ADD1319
	4	Front Panel Assy G	AXG1032	Not used
	4	Front Panel Assy C	Not used	AXG1033
	10	Indicator Panel (G)	AAK2845	Not used
	10	Indicator Panel (C)	Not used	AAK2846

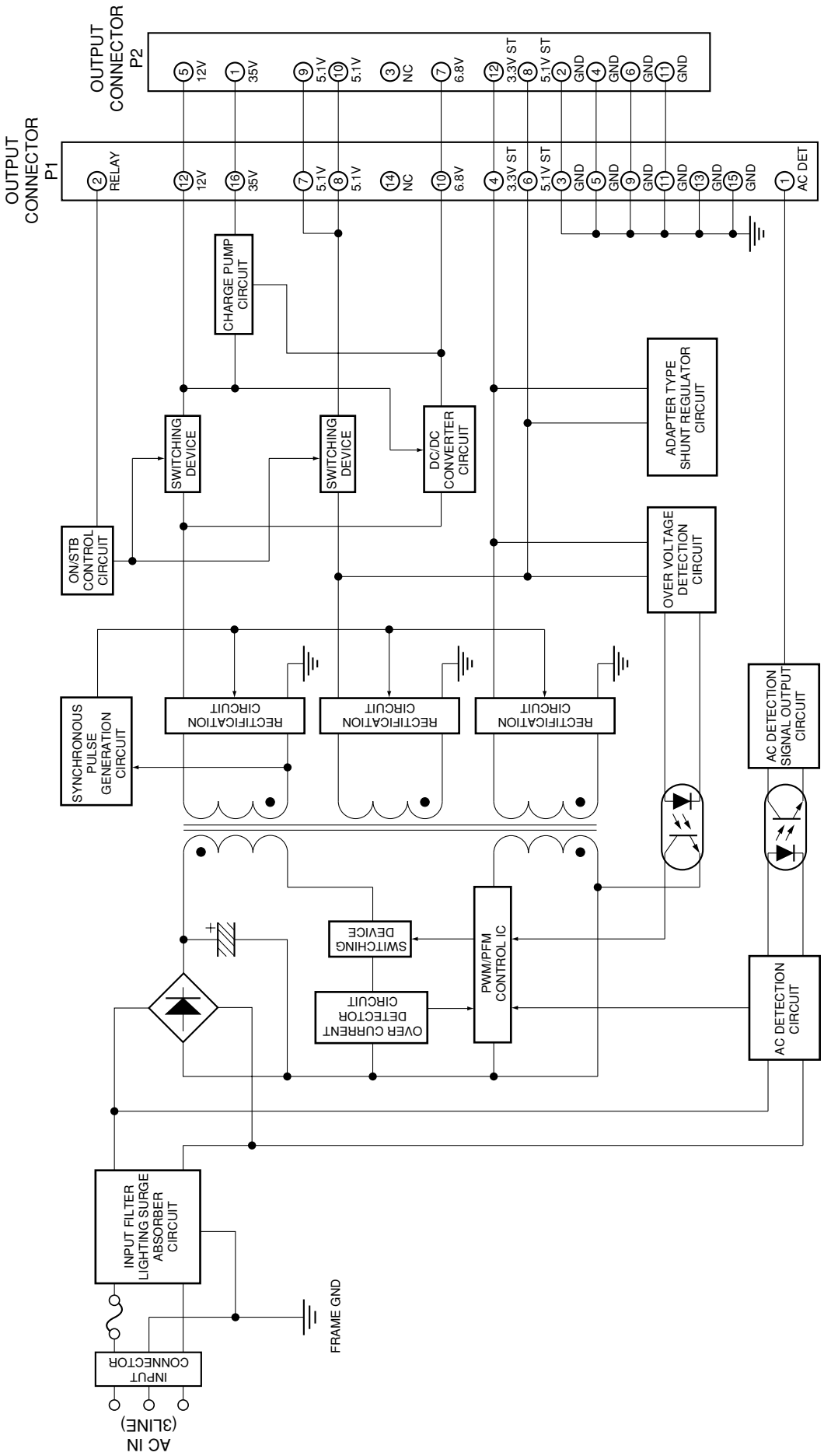
3. BLOCK DIAGRAM

3.1 OVERALL BLOCK DIAGRAM



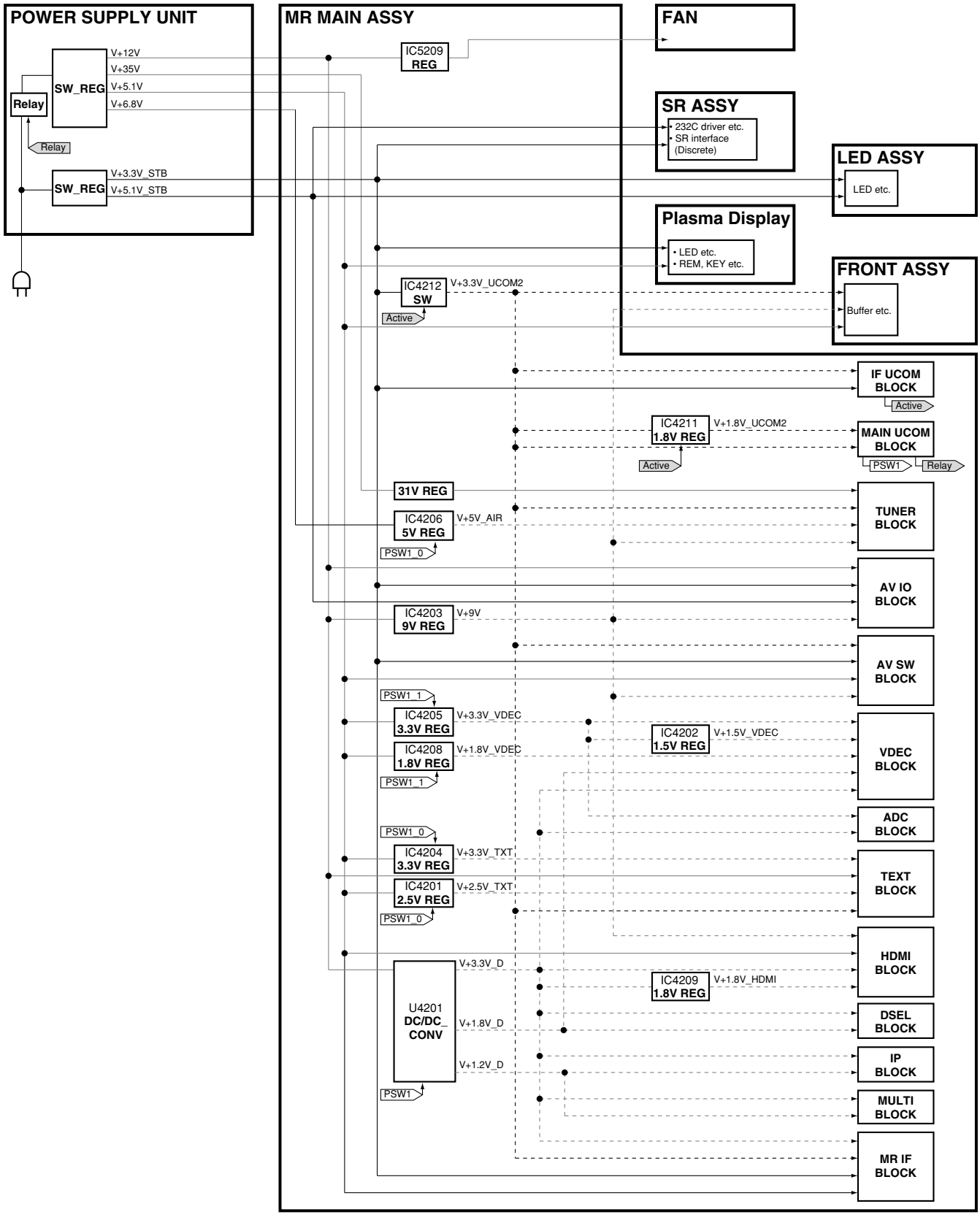

: Video Signal Route
: Audio Signal Route
IC5403
K4S641632H-TC75
64M SDRAM
EXA_TXT
EXDIO_TXT
IC5404
S29AL016D70TF1010
16M FLASH
IC6801
K4S643232H-TC60
64M SDRAM
IC6802
K4S643232H-TC60
64M SDRAM
MD_A
MA
MD_B
VD_M
HD_M
CBCR_M
Y_M
IC6803
PE5504B
IP
DIN5
DIN4_G
DIN4_R
DIN4_B
VD4/5
HD4/5
IC6601
PD6523A
DIGITAL SELECTOR
DIN6_DATA
HD6/VD6
INT_HD1/VD1
EXT_HD1/VD1
RST_IC6
DIN3_G
DIN3_R
DIN3_B
HD3
VD2
HD2
DIN2_RGB
DIN2_RCR
DIN2_GY
RXD_IC6
TXD_IC6
RS1_IC2
MGA/MBA/MRA
MVD/MHD
EXA
EXDIO
VD_S
HD_S
RCR/GY/BCB_S
HD_PLL
HOLD_PLL
CLP_AD
RXD_IC3
TXD_IC3
IC7001
PEG121B
MULTI
IC5207
MBM29DL162TE70TN
16M FLASH
RA
GA
BA
HD/VD
SCL_MA
SDA_MA
IC7202
SII170BCLG64
TMDS
(DVI Tx)
CN7202
PLASMA DISPLAY
WHITE
DATAIN_HDCP
SDA_HDCP
SCL_HDCP
RST_ASIC
REM_B
IC7203
TC74VHC08FTS1
BUFFER
SDA_AV
SCL_AV
SDA_AIR
SCL_AIR
IC6405
PCM1754DBQ
AUDIO DAC
RXD1_TXT
TXD1_TXT
IC5206
MB91305PMC-G-BND
MAIN UCOM
TXD_MD
RXD_MD
IC7201
TC74VHC08FTS1
BUFFER
IC6404
SII9021CTU
HDMI Rx
REM_B
MTXD
MRXD
AUDIO_L/R
CN7201
PLASMA DISPLAY
BLACK
A0-19
DQ0-15
IC5207
MBM29DL162TE70TN
16M FLASH
RELAY
IC5209
PQ200WNA1ZPH
FAN CONTROL
R1
Input 3
HDMI
POWER SUPPLY
UNIT
FAN

3.2 POWER SUPPLY UNIT



POWER SUPPLY UNIT

3.3 POWER SUPPLY SIGNAL ROUTE



3.4 VOLTAGES

FRONT ASSY — **MR MAIN ASSY**

CN7004 (AKM1236)		Voltage (V)	CN4001 (AKM1236)	
No.	Name		Name	No.
1	V+3_3V_STB	3.4	V+3_3V_STB	50
2	LED_ON	0	LED_ON	49
3	LED_OFF	3.4	LED_OFF	48
4	GND[LED_MDM]	0	GND[LED_MDM]	47
5	V+5_1V_STB	5.1	V+5_1V_STB	46
6	GND[LED_FCT]	0	GND[LED_FCT]	45
7	KEY_AD1	3.4	KEY_AD1	44
8	KEY_AD2	3.4	KEY_AD2	43
9	GND	0	GND	42
10	GND[LED_HDD1]	0	GND[LED_HDD1]	41
11	GND[LED_HDD2]	0	GND[LED_HDD2]	40
12	GND[LED_HDD3]	0	GND[LED_HDD3]	39
13	PC_V	0	PC_V	38
14	GND	0	GND	37
15	PC_H	0	PC_H	36
16	GND	0	GND	35
17	PC_G	2.5	PC_G	34
18	GND	0	GND	33
19	PC_B	2.5	PC_B	32
20	GND	0	GND	31
21	PC_R	2.5	PC_R	30
22	GND	0	GND	29
23	GND	0	GND	28
24	HP_PLUG	0	HP_PLUG	27
25	NC	0	NC	26
26	GND	0	GND	25
27	GND	0	GND	24
28	HP_R	2.1	HP_R	23
29	GND	0	GND	22
30	GND	0	GND	21
31	HP_L	2.1	HP_L	20
32	GND	0	GND	19
33	GND	0	GND	18
34	INPUT4_Y	2.5	INPUT4_Y	17
35	GND	0	GND	16
36	INPUT4_C	2.2	INPUT4_C	15
37	GND	0	GND	14
38	INPUT4_SPLUG	5.0	INPUT4_SPLUG	13
39	INPUT4_S2	0	INPUT4_S2	12
40	GND	0	GND	11
41	INPUT4_V	2.5	INPUT4_V	10
42	GND	0	GND	9
43	INPUT4_L	4.5	INPUT4_L	8
44	GND	0	GND	7
45	INPUT4_R	4.5	INPUT4_R	6
46	GND	0	GND	5
47	WE_RDM	0	WE_RDM	4
48	V+3_3V_UCOM	3.4	V+3_3V_UCOM	3
49	V+5V_A	5.1	V+5V_A	2
50	V+9V_A	9.0	V+9V_A	1

FRONT ASSY — **LED ASSY**

CN7804 (AKM1238)		Voltage (V)	CN8001 (CKS3826)	
No.	Name		Name	No.
1	GND	0	GND	12
2	GND	0	GND	11
3	GND	0	GND	10
4	GND	0	GND	9
5	KEY_AD2	3.4	KEY_AD2	8
6	KEY_AD1	3.4	KEY_AD1	7
7	LED_TREC	0	LED_TREC	6
8	V+5_V_STB	5.1	V+5_V_STB	5
9	GND	0	GND	4
10	LED_OFF	3.4	LED_OFF	3
11	LED_ON	0	LED_ON	2
12	V+3_3V_STB	3.4	V+3_3V_STB	1

FAN — **MR MAIN ASSY**

		Voltage (V)	CN4009 (AKM1274)	
No.	Name		Name	No.
–	–	6.5	FAN_VCC	1
–	–	0	FAN_NG1	2
–	–	0	GND	3

SR ASSY — **MR MAIN ASSY**

CN7601 (CKS3826)		Voltage (V)	CN4008 (AKM1233)	
No.	Name		Name	No.
12	V+5_1_STB	5.1	V+5_1_STB	1
11	V+3_3_STB	3.4	V+3_3_STB	2
10	TXD	3.4	TXD	3
9	RXD	3.4	RXD	4
8	232C_DET	0	232C_DET	5
7	SR_EN_B	3.4	SR_EN_B	6
6	GND	0	GND	7
5	REM_B	3.4	REM_B	8
4	SR_IN	3.4	SR_IN	9
3	GND	0	GND	10
2	NC	-	NC	11
1	GND	0	GND	12

POWER SUPPLY UNIT — **MR MAIN ASSY**

CN101 (B16B-PH-K-S)		Voltage (V)	CN4006 (KM200NA16)	
No.	Name		Name	No.
16	V+35V	35.8	V+35V	16
15	GND	0	GND	15
14	V+17V	0	V+17V	14
13	GND	0	GND	13
12	V+12V	12.2	V+12V	12
11	GND	0	GND	11
10	V+6_8V	6.6	V+6_8V	10
9	GND	0	GND	9
8	V+5_1V	5.1	V+5_1V	8
7	V+5_1V	5.1	V+5_1V	7
6	V+5_1V_STB	5.1	V+5_1V_STB	6
5	GND	0	GND	5
4	V+3_3V_STB	3.4	V+3_3V_STB	4
3	GND	0	GND	3
2	RELAY	3.4	RELAY	2
1	AC_DET	3.4	AC_DET	1

5. PCB PARTS LIST

NOTES: ● *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
● *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
● *When ordering resistors, first convert resistance values into code form as shown in the following examples.*
Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω → 56 x 10^1 → 561 ····· RD1/4PU 5 6 1 J
47k Ω → 47 x 10^3 → 473 ····· RD1/4PU 4 7 3 J
0.5 Ω → R50 ····· RN2H R 5 0 K
1 Ω → 1R0 ····· RS1P 1 R 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω → 562 x 10^1 → 5621 ····· RN1/4PC 5 6 2 1 F

■ LIST OF HOLE PCB ASSEMBLIES

Mark	Symbol and Description	PDP-R06G/TLDFXJ	PDP-R06C/WAXU5
	1..MR MAIN ASSY	AWV2232	AWV2234
NSP	1..MR FUKUGO ASSY	AWV2233	AWV2233
	2..SR ASSY	AWW1037	AWW1037
	2..FRONT ASSY	AWW1051	AWW1051
	2..LED ASSY	AWW1043	AWW1043
⚠	1..POWER SUPPLY UNIT	AXY1114	AXY1114

MR MAIN ASSY

AWV2232 and AWV2234 are constructed the same except for the following :

Mark	Symbol and Description	AWV2232	AWV2234
	[MAIN UCOM BLOCK]		
	R5243	RS1/16SS103J	Not used
	R5251	Not used	RS1/16SS103J
	R5252	Not used	RS1/10S0R0J
	R5253	RS1/10S0R0J	Not used

■ PCB PARTS LIST FOR PDP-R06G/TLDFXJ UNLESS OTHER WISE NOTED

Mark	No.	Description	Part No.
MR MAIN ASSY			
[BOARD IF BLOCK]			
SEMICONDUCTORS			
	Q4003,Q4004		2SA1586
	Q4001		DTA124EUA
	Q4002		TPC6104
	D4001-D4003,D4005		1SS355
CAPACITORS			
	C4002		CKSRYB105K10
	C4003,C4004		CKSSYB104K10
RESISTORS			
	R4021-R4023		RS1/10S0R0J
	R4007		RS2LMF8R2J
	Other Resistors		RS1/16S###J
OTHERS			
	CN4008	12P FFC CONNECTOR	AKM1233
	CN4001	50P CONNECTOR	AKM1236
	CN4009	CONNECTOR 3P	AKM1274
	CN4006	16P CONNECTOR	KM200NA16

Mark	No.	Description	Part No.
[REG BLOCK]			
SEMICONDUCTORS			
	IC4212		BD6522F
	IC4208,IC4211		MM1661JH
	IC4202		NCP1117ST15
	IC4209		NCP1117ST18
	IC4201		PQ025ENA1ZPH
	IC4204,IC4205		PQ033ENA1ZPH
	IC4206		PQ050DNA1ZPH
	IC4203		PQ090DNA1ZPH
	Q4201		DTC124EUA
	D4201-D4206,D4208,D4209,D4211		1SS355
COILS AND FILTERS			
	L4201	INDUCTOR	BTH1111
⚠	L4203-L4205	CHIP BEAD FILTER	BTX1042
⚠	F4201-F4203,F4205,F4207	EMI FILTER	CCG1162
CAPACITORS			
	C4201,C4206,C4209 (10/6.3V)		ACG7046
	C4215,C4220,C4233 (10/6.3V)		ACG7046
	C4235,C4240 (10/6.3V)		ACG7046
	C4250,C4253 (10/6.3V)		ACG7046
	C4257,C4260,C4263 (10/6.3V)		ACG7046

Mark	No.	Description	Part No.
	C4213	(100/16V)	ACH1394
	C4210,C4244,C4269		ACH1429
	C4273		CCSSCH101J50
	C4205,C4216,C4219,C4221,C4222		CEHVKW101M6R3
	C4224,C4228,C4238,C4264		CEHVKW101M6R3
	C4226		CEHVKW220M16
	C4214		CKSRYB104K16
	C4203,C4217,C4223		CKSRYB105K10
	C4229,C4237,C4252		CKSSYB104K10
	C4232,C4234		CKSSYB471K50
	C4204,C4212,C4227,C4236,C4251		CKSSYF104Z16
	C4261,C4262		CKSSYF104Z16
	C4211,C4225,C4256		DCH1165
	RESISTORS		
	R4221,R4226		RS1/10S0R0J
	Other Resistors		RS1/16S###J
	OTHERS		
	U4201	DD CONTROL UNIT	AXY1117
	[TUNER BLOCK]		
	SEMICONDUCTORS		
	IC4401		MSP3455G
	Q4404		2SA1586
	Q4401,Q4402		2SC4116
	Q4414		DTA124EUA
	Q4413,Q4415		DTC124EUA
	Q4407,Q4408		HN1A01FU
	Q4405		HN1B04FU
	Q4409		HN1C01FU
	D4401		UDZS33(B)
	D4403		UDZS8R2(B)
	COILS AND FILTERS		
	L4401-L4403	CHIP COIL	BTH1119
	L4405,L4406		LCTAW150J2520
	L4407		LCTAW4R7J2520
	L4404		LCTAW8R2J2520
	F4401,F4402	FERRITE BEAD	VTF1080
	CAPACITORS		
	C4404,C4407,C4410	(10/6.3V)	ACG7046
	C4415,C4416	(10/6.3V)	ACG7046
	C4429,C4459	(10/6.3V)	ACG7046
	C4424	(3.3/50V)	ACH1385
	C4449		CCSRCH680J50
	C4442		CCSRCJ3R0C50
	C4417,C4418		CCSSCH100D50
	C4450		CCSSCH121J50
	C4456		CCSSCH181J50
	C4448		CCSSCH470J50
	C4428,C4443		CCSSCH560J50
	C4441		CCSSCH5R0D50
	C4409,C4423		CEHVKW100M16
	C4422		CEHVKW470M16
	C4420		CKSRYB332K50
	C4401,C4413		CKSRYF104Z50
	C4403,C4421,C4427,C4430,C4440		CKSSYB102K50
	C4444,C4455,C4461		CKSSYB102K50
	C4408,C4439,C4446		CKSSYB103K16
	C4438,C4454		CKSSYB472K25

Mark	No.	Description	Part No.
	C4402,C4405,C4406,C4425,C4426		CKSSYF104Z16
	C4434,C4435,C4447,C4451,C4460		CKSSYF104Z16
	C4465		CKSSYF104Z16
	C4414,C4437,C4445		DCH1165
	RESISTORS		
	All Resistors		RS1/16S###J
	OTHERS		
	X4401	CRYSTAL (18.432MHz)	ASS1196
⚠	U4401	FRONT END (IBD)	AXF1150
	[AV IO BLOCK]		
	SEMICONDUCTORS		
	Q4614,Q4626,Q4639		2SA1586
	Q4618,Q4622-Q4624,Q4637		2SC4116
	Q4619,Q4620,Q4640		2SD2114K
	Q4616,Q4621,Q4627		DTA124EUA
	Q4617,Q4628		DTC124EUA
	Q4625,Q4638		HN1A01FU
	D4611,D4612,D4615		1SS301
	D4606		1SS355
	COILS AND FILTERS		
	L4601-L4606		LCTAW1R0J2520
	L4607,L4608		LCTAW560J2520
	CAPACITORS		
	C4621	(10/6.3V)	ACG7046
	C4657	(100/16V)	ACH1394
	C4623		ACH1419
	C4658		CCG1205
	C4643		CKSRYB104K16
	C4603,C4608,C4613,C4631-C4639		CKSRYB105K10
	C4641,C4642,C4645-C4648		CKSRYB105K10
	C4644		CKSRYB224K10
⚠	C4651-C4656		CKSSYB102K50
	C4601,C4604-C4606,C4609-C4611		CKSSYB103K16
	C4614,C4615,C4649,C4650		CKSSYB103K16
	C4602,C4607,C4612		CKSSYB473K16
	C4622		CKSSYF104Z16
	C4620,C4624,C4625,C4628		DCH1165
	RESISTORS		
	R4670		RS1/10S121J
	R4658		RS1/10S151J
	R4602,R4603,R4605,R4606		RS1/16S75R0F
	R4608-R4612,R4619-R4622		RS1/16S75R0F
	R4625,R4626		RS1/16S75R0F
	Other Resistors		RS1/16S###J
	OTHERS		
	JA4603	9P PIN JACK	AKB1319
	JA4602	9P PIN JACK	AKB1330
	JA4601	4P MINI DIN (S)	AKP1280
	JA4604	1P JACK	VKB1159
	[AV SW BLOCK]		
	SEMICONDUCTORS		
	IC4807		BH3544F
	IC4805		NJM12904V
	IC4806		R2S11001FT
	IC4804		R2S11002AFT
	IC4809		TC7WH123FU

Mark No.	Description	Part No.
Q4801,Q4802,Q4809,Q4818,Q4820		2SA1586
Q4808,Q4811-Q4813,Q4821		2SC4116
Q4814		DTA124EUA
Q4815		DTC124EUA
D4802,D4806		1SS301
CAPACITORS		
C4916 (4.7/10V)		ACG1122
C4821,C4835,C4871 (10/6.3V)		ACG7046
C4875,C4896,C4923 (10/6.3V)		ACG7046
C4877,C4880		CCSRCH181J50
C4859		CCSRCH331J50
C4861		CCSRCH680J50
C4885,C4888		CCSRCH681J50
C4822,C4862		CEHVKW101M6R3
C4898		CEHVKW470M6R3
C4802,C4805,C4806,C4808		CKSRYB105K10
C4813,C4814,C4820,C4833,C4834		CKSRYB105K10
C4836,C4838-C4841,C4847,C4848		CKSRYB105K10
C4850,C4851,C4878,C4879,C4889		CKSRYB105K10
C4894,C4895,C4922		CKSRYB105K10
C4853-C4858,C4860,C4865		CKSSYB103K16
C4869,C4870,C4890-C4893		CKSSYB103K16
C4807,C4809		CKSSYB104K10
C4801,C4819,C4845,C4846,C4864		CKSSYF104Z16
C4867,C4868,C4873,C4874		CKSSYF104Z16
C4881-C4884,C4886,C4887		CKSSYF104Z16
C4899-C4901,C4917,C4921,C4925		CKSSYF104Z16
C4844,C4863,C4866,C4872,C4876		DCH1165
RESISTORS		
R4975,R4999		RD1/2LMF120J
R4784,R4786		RS1/16S1800F
R4785,R4787		RS1/16S5600F
Other Resistors		RS1/16S###J
[IF UCOM BLOCK]		
SEMICONDUCTORS		
IC5002		HD64F3684FP
IC5003		PST9230N
IC5001		TC74VHC08FTS1
IC5004		TC7W126FU
Q5001		DTC124EUA
CAPACITORS		
C5007,C5008		CCSSCH180J50
C5001		CEHVKW101M6R3
C5010		CKSSYB472K25
C5002-C5005,C5009,C5012		CKSSYF104Z16
RESISTORS		
R5002,R5007,R5025-R5027		RAB4CQ103J
Other Resistors		RS1/16S###J
OTHERS		
X5002 CERAMIC RESONATOR		ASS1168
X5001 CRYSTAL OSCILLATOR		ASS1172

Mark No.	Description	Part No.
[MAIN UCOM BLOCK]		
SEMICONDUCTORS		
IC5202		BR24L64F-W
IC5206		MB91305PMC-G-BND
IC5207		MBM29DL162TE70TN
IC5210		MM1522XU
IC5209		PQ200WNA1ZPH
IC5203		PST3628UR
IC5201		TC74VHC125FTS1
Q5202		2SJ461A
Q5204		DTC124EUA
Q5201		SM6K2
D5203		1SS355
D5201		SML-311UT
CAPACITORS		
C5235		CCSRCH221J50
C5244,C5245		CCSSCH120J50
C5217,C5218,C5237,C5239-C5243		CCSSCH470J50
C5246-C5249		CCSSCH470J50
C5238		CEHVKW100M35
C5201		CEHVKW101M6R3
C5261-C5263		CKSSYB102K50
C5216,C5233		CKSSYB103K16
C5215		CKSSYB472K25
C5253		CKSSYF103Z50
C5202-C5209,C5211-C5214,C5219		CKSSYF104Z16
C5222-C5232,C5234,C5252		CKSSYF104Z16
C5236		DCH1165
RESISTORS		
R5262,R5268		ACN1248
R5205,R5213		RAB4CQ101J
R5253		RS1/10S0R0J
R5283		RS1/16S1001F
R5282		RS1/16S4701F
R5273		RS1/16S8201F
Other Resistors		RS1/16S###J
OTHERS		
CN5202 50P CONNECTOR		AKM1201
K5201,K5202 TEST PIN		AKX9002
X5201 CERAMIC RESONATOR		ASS1178
[TEXT UCOM BLOCK]		
SEMICONDUCTORS		
IC5403		K4S641632H-TC75
IC5404		S29AL016D70TFI010
IC5405		SDA6000
IC5407		TC74LCX125FT
IC5402		TC7SH04FUS1
IC5406		TC7W126FU
Q5401,Q5406		DTA124EUA
Q5403,Q5407		DTC124EUA
D5404		1SS355
D5401		UDZS12(B)
D5402		UDZS3R0(B)
D5403		UDZS3R9(B)
COILS AND FILTERS		
⚠F5402,F5403 EMI FILTER		CCG1162

Mark No.	Description	Part No.
	CAPACITORS	
	C5412,C5438,C5453 (10/6.3V)	ACG7046
	C5422,C5423	CCSSCH200J50
A	C5404	CKSSYB102K50
	C5403	CKSSYB103K16
	C5445	CKSSYB104K10
	C5405,C5406,C5408,C5410,C5413	CKSSYF104Z16
	C5416,C5418,C5420,C5425,C5427	CKSSYF104Z16
	C5429-C5431,C5434,C5435,C5440	CKSSYF104Z16
	C5442,C5446,C5449,C5451,C5454	CKSSYF104Z16
	C5456,C5458,C5460,C5476	CKSSYF104Z16
	RESISTORS	
	R5409	ACN1251
B	R5404,R5428,R5429,R5434,R5435	BCN1067
	R5439,R5457,R5476	RAB4CQ103J
	R5432,R5460	RAB4CQ680J
	Other Resistors	RS1/16S###J
	OTHERS	
	X5401 CRYSTAL	ASS1193
	[VDEC BLOCK]	
	SEMICONDUCTORS	
	IC6002	K4S161622H-TC60
	IC6001	TVP5150AM1PBS
C	IC6003	UPD64015GM-UEU
	Q6002	DTA124EUA
	COILS AND FILTERS	
	⚠F6001,F6002,F6008-F6011,F6022 EMI FILTER	CCG1162
	CAPACITORS	
	C6056,C6088 (10/6.3V)	ACG7046
	C6059,C6060	CCSSCH100D50
	C6078,C6083	CCSSCH8R0D50
	C6048-C6050	CKSRYB105K10
D	C6062,C6069	CKSSYB103K16
	C6046,C6051,C6052,C6054,C6058	CKSSYB104K10
	C6063,C6064,C6066,C6067	CKSSYB104K10
	C6072,C6073,C6075-C6077	CKSSYB104K10
	C6081,C6082,C6084,C6085	CKSSYB104K10
	C6001-C6008,C6012-C6028	CKSSYF104Z16
	C6031-C6045,C6047,C6053,C6055	CKSSYF104Z16
	C6061,C6065,C6068,C6070,C6071	CKSSYF104Z16
	C6074,C6079,C6080,C6090,C6091	CKSSYF104Z16
	RESISTORS	
E	R6010,R6062,R6068,R6072	ACN1246
	R6065,R6073	BCN1067
	R6007,R6023,R6030,R6071	RAB4CQ220J
	R6063	RS1/16SS1001D
	R6038,R6039,R6049	RS1/16SS2000F
	R6054	RS1/16SS2201D
	R6052	RS1/16SS6200D
	Other Resistors	RS1/16S###J
	OTHERS	
	X6001 CRYSTAL	ASS1189
	X6002 CRYSTAL	ASS1191
F		

Mark No.	Description	Part No.
	[ADC BLOCK]	
	SEMICONDUCTORS	
	IC6201	AD9985KSTZ-110
	COILS AND FILTERS	
	⚠F6201,F6204 EMI FILTER	CCG1162
	CAPACITORS	
	C6205,C6209	CKSSYB104K10
	C6207,C6210,C6218	CKSSYB473K16
	C6202	CKSSYB822K16
	C6201	CKSSYB823K10
	C6203,C6204,C6206,C6208	CKSSYF104Z16
	C6211,C6212,C6215-C6217	CKSSYF104Z16
	C6222-C6224	CKSSYF104Z16
	RESISTORS	
	R6213,R6218,R6223	BCN1067
	R6202	RS1/16SS2701F
	Other Resistors	RS1/16S###J
	[HDMI BLOCK]	
	SEMICONDUCTORS	
	IC6403	BR24L02FJ-W
	IC6405	PCM1754DBQ
	IC6404	SII9021CTU
	Q6416	2SA1586
	Q6414	DTA124EUA
	Q6415	DTC124EUA
	Q6405	HN1K02FU
	Q6404	RN1902
	D6408	1SS301
	D6407	UDZS6R8(B)
	COILS AND FILTERS	
	⚠F6401 EMI FILTER	CCG1162
	CAPACITORS	
	C6491 (10/6.3V)	ACG7046
	C6401,C6403,C6405,C6407,C6411	CCSSCH101J50
	C6419,C6426,C6428,C6430,C6432	CCSSCH101J50
	C6434,C6435,C6438,C6440,C6442	CCSSCH101J50
	C6444,C6446,C6448,C6449,C6454	CCSSCH101J50
	C6456,C6459,C6464,C6466,C6468	CCSSCH101J50
	C6470,C6472,C6474,C6476,C6478	CCSSCH101J50
	C6480,C6482	CCSSCH101J50
	C6462,C6463	CCSSCH120J50
	C6484	CEHVKW220M6R3
	C6402,C6404,C6406,C6408,C6410	CKSSYF104Z16
	C6412,C6414,C6416,C6418,C6420	CKSSYF104Z16
	C6422,C6423,C6427,C6429,C6431	CKSSYF104Z16
	C6433,C6436,C6437,C6439,C6441	CKSSYF104Z16
	C6443,C6445,C6447,C6450,C6451	CKSSYF104Z16
	C6455,C6457,C6458,C6460,C6461	CKSSYF104Z16
	C6465,C6467,C6469,C6471,C6473	CKSSYF104Z16
	C6475,C6477,C6479,C6481,C6483	CKSSYF104Z16
	C6490	CKSSYF104Z16
	RESISTORS	
	R6418,R6419,R6421	ACN1251
	R6414	RAB4CQ100J
	R6465	RAB4CQ103J
	R6438	RAB4CQ470J
	R6416	RAB4CQ680J

Mark No.	Description	Part No.
	Other Resistors	RS1/16S###J
OTHERS		
	JA6402 HDMI CONNECTOR	AKP1278
	X6401 CRYSTAL	ASS1192
[DSEL BLOCK]		
SEMICONDUCTORS		
	IC6601	PD6523A
	IC6602	TC74LCX125FT
COILS AND FILTERS		
⚠	F6604 CHIP BEAD FILTER	ATX1058
⚠	F6601-F6603 EMI FILTER	CCG1162
CAPACITORS		
	C6632 (10/6.3V)	ACG7046
	C6604	CCSRCH221J50
	C6631	CKSSYB102K50
	C6601-C6603,C6607-C6610	CKSSYF104Z16
	C6613-C6617,C6619,C6621-C6623	CKSSYF104Z16
	C6625-C6627,C6629,C6630	CKSSYF104Z16
RESISTORS		
	R6603-R6605	ACN1251
	R6611,R6614,R6618	BCN1071
	R6613,R6620	RAB4CQ101J
	Other Resistors	RS1/16S###J
OTHERS		
	X6601 CRYSTAL	ASS1194
[IP BLOCK]		
SEMICONDUCTORS		
	IC6801,IC6802	K4S643232H-TC60
	IC6803	PE5504B
COILS AND FILTERS		
⚠	L6801-L6804 CHIP BEAD FILTER	BTX1042
CAPACITORS		
	C6801 (10/6.3V)	ACG7046
	C6863	CKSSYB102K50
	C6802,C6804,C6807-C6809,C6813	CKSSYF104Z16
	C6815-C6817,C6821,C6824-C6828	CKSSYF104Z16
	C6830,C6831,C6834,C6835	CKSSYF104Z16
	C6839-C6862	CKSSYF104Z16
RESISTORS		
	R6833,R6838	ACN1246
	R6841,R6844-R6847	ACN1251
	R6813,R6814,R6816,R6820,R6821	BCN1067
	R6823,R6825,R6827,R6828	BCN1067
	R6818	BCN1071
	R6832	RAB4CQ101J
	R6817	RAB4CQ470J
	Other Resistors	RS1/16S###J

Mark No.	Description	Part No.
[MULTI BLOCK]		
SEMICONDUCTORS		
	IC7002	MBM29DL162TE70TN
	IC7001	PEG121B
	IC7004	TC74VHC08FTS1
COILS AND FILTERS		
⚠	F7001-F7005 EMI FILTER	CCG1162
CAPACITORS		
	C7052	CKSSYB102K50
	C7006,C7008,C7010-C7017,C7019	CKSSYF104Z16
	C7021,C7023,C7024,C7026-C7029	CKSSYF104Z16
	C7032-C7034,C7036,C7037	CKSSYF104Z16
	C7039-C7042,C7044,C7046-C7048	CKSSYF104Z16
	C7050	CKSSYF104Z16
RESISTORS		
	R7011,R7013,R7024,R7032,R7036	ACN1246
	R7062-R7064	ACN1251
	R7015,R7023	RAB4CQ101J
	R7016,R7018,R7070	RAB4CQ103J
	R7060	RAB4CQ680J
	Other Resistors	RS1/16S###J
[MR IF BLOCK]		
SEMICONDUCTORS		
	IC7202	SII170BCLG64
	IC7201,IC7203	TC74VHC08FTS1
	Q7206	2SA1586
	Q7203,Q7207,Q7210	DTA124EUA
	Q7211	DTC124EUA
	Q7209	HN1C01FU
	Q7201	RN1902
	D7202-D7206	1SS355
COILS AND FILTERS		
⚠	F7204-F7207 EMI FILTER	ATF1209
⚠	L7201 CHIP BEAD FILTER	BTX1042
⚠	F7201-F7203 EMI FILTER	CCG1162
⚠	F7208 EMI FILTER	CCG1162
CAPACITORS		
	C7203,C7207,C7208 (10/6.3V)	ACG7046
	C7226,C7227	CCSSCH100D50
	C7201,C7204,C7211,C7213,C7214	CCSSCH101J50
	C7216,C7217,C7219,C7221,C7222	CCSSCH101J50
	C7223	CKSSYB102K50
	C7209,C7215,C7220,C7225,C7228	CKSSYB471K50
	C7202,C7205,C7206,C7210,C7212	CKSSYF104Z16
	C7218,C7224	CKSSYF104Z16
RESISTORS		
	R7215	RAB4CQ101J
	R7216	RS1/16S5100F
	Other Resistors	RS1/16S###J
OTHERS		
	CN7201 SOCKET (20P)	AKP1226
	CN7202 DVI SOCKET (24P)	AKP1250

Mark	No.	Description	Part No.

SR ASSY

SEMICONDUCTORS

	IC7601	MAX3232CPW
	IC7603	TC74VHC00FTS1
	IC7602	TC74VHC125FTS1
	Q7601,Q7605	2SA1586
	Q7603	2SC4116
	Q7602,Q7604,Q7606	DTC124EUA
	D7609-D7612	1SS355

CAPACITORS

	C7608,C7611	CEHVKW100M16
	C7603-C7607,C7609,C7610	CKSSYF104Z16

RESISTORS

	All Resistors	RS1/16S###J

OTHERS

	JA7603 MINI JACK (4P)	AKN1073
	CN7602 9P D-SUB SOCKET	AKP1213
	CN7601 CONNECTOR	CKS3826
	JA7602 JACK	RKN1004

FRONT ASSY

SEMICONDUCTORS

	IC7801	BR24C21FJ
	IC7802	TC74VHC08FTS1
	Q7806-Q7808	2SC4116
	Q7804,Q7805	DTC124EUA
	D7813	1SS301
	D7816-D7818	1SS302
	D7801-D7803	UDZS5R1(B)
	D7809-D7812,D7814,D7815	UDZS5R6(B)
	D7804,D7808	UDZS9R1(B)

COILS AND FILTERS

	L7803,L7804	LCTAW560J2520

CAPACITORS

	C7821,C7827 (10/6.3V)	ACG7046
	C7829,C7830 (10/6.3V)	ACG7046
	C7822,C7823	CCSRCH220J50
	C7817,C7818	CEHAT471M10
	C7803,C7804	CKSRYB103K50
	C7805,C7808,C7809,C7813	CKSRYB105K10
	C7831,C7832,C7834	CKSRYB105K10
	C7801	CKSRYB473K16
⚠	C7839,C7840	CKSSYB102K50
	C7802,C7820,C7824	CKSSYF104Z16
	C7819,C7835	DCH1165

RESISTORS

	R7801,R7803,R7809,R7857-R7859	RS1/16S75R0F
	Other Resistors	RS1/16S###J

OTHERS

	JA7803 PIN JACK (3P)	AKB1303
	CN7803 12P FFC CONNECTOR	AKM1233
	CN7804 50P CONNECTOR	AKM1236
	CN7801 MINI JACK	AKN1028
	CN7806 15P D-SUB SOCKET	AKP1214
	JA7801 4P MINI DIN SOCKET (S)	AKP1238
⚠	7805 SCREW TERMINAL	VNE1949

LED ASSY

SEMICONDUCTORS

	Q8004	DTC124EUA
	Q8002	RN2902
	D8003	SML-311UT
	D8004	SML310BA1T

SWITCHES AND RELAYS

	S8001-S8006	ASG1088

CAPACITORS

	C8005,C8006	CCSRCH101J50
	C8001,C8002	CKSSYF104Z16

RESISTORS

	All Resistors	RS1/16S###J

OTHERS

	CN8001 CONNECTOR	CKS3826

POWER SUPPLY UNIT

POWER SUPPLY Unit has no service part.

6. ADJUSTMENT

1. At shipment, the unit is adjusted to its best conditions. Normally, it is not necessary to readjust even if an assembly is replaced.
2. Use a stable AC power supply.

6.1 POSSIBLE CASES WHERE READJUSTMENT IS REQUIRED

■ When any of the following assemblies is replaced

POWER SUPPLY Unit	➡	No adjustment required
MR MAIN Assy	➡	No adjustment required
Other assemblies	➡	No adjustment required

■ When any part in the following assemblies is replaced

POWER SUPPLY Unit	➡	The assembly must be replaced as a unit, and no part replacement is allowed.
MR MAIN Assy	➡	No adjustment required. However, IC4804, IC4806, IC5207, IC6001, IC6003 and IC6201 must not be replaced. In this case, the assembly must be replaced as a unit.
Other assemblies	➡	No adjustment required

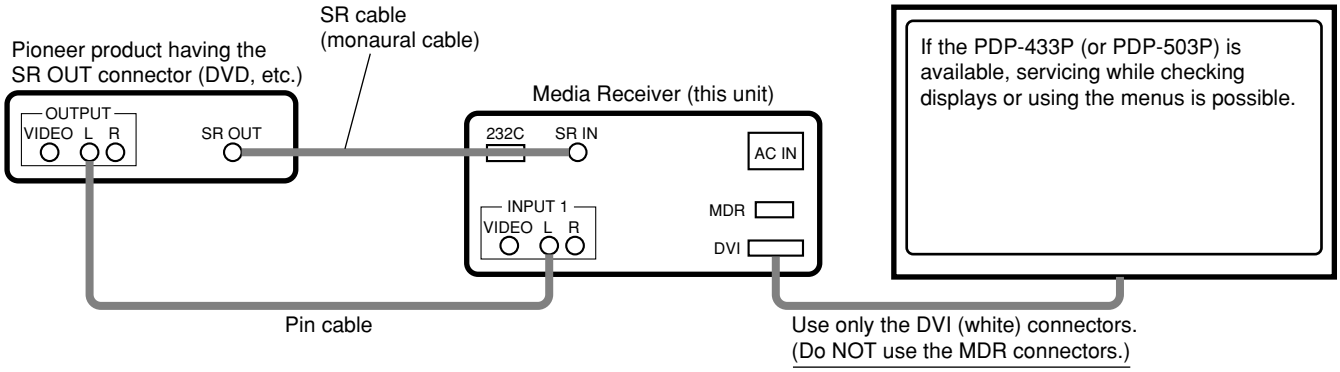
6.2 SERVICING USING ONLY THE MEDIA RECEIVER

For servicing of the PDP-436HD and PDP-506HD-series Plasma Display using only the Media Receiver, the following two methods can be used:

● Remote controlling using SR connections

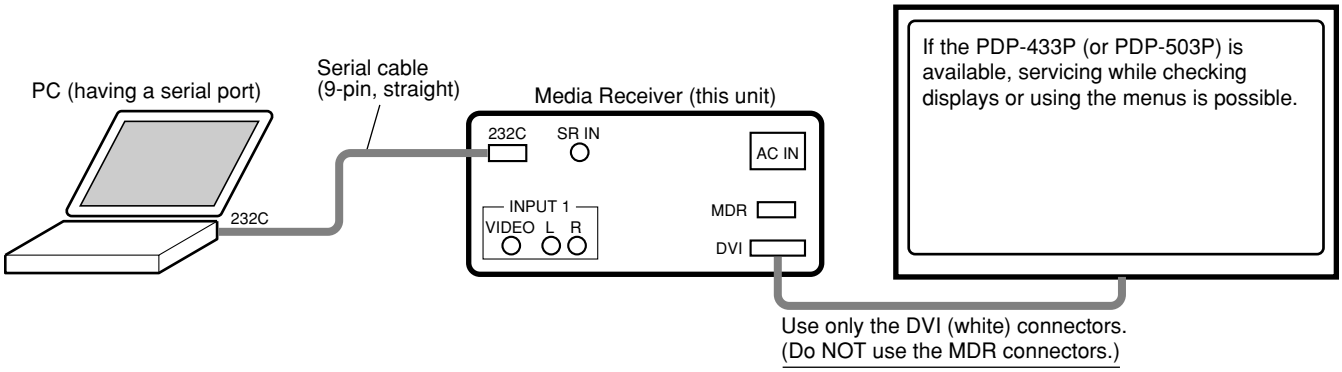
About connections

- Connect the SR OUT connector of a Pioneer product having that connector (a DVD in the following example) and the SR IN connector of the Media Receiver, using the SR cable. As the remote control sensor is not provided with the Media Receiver, this connection is required for using the remote control unit if the panel is not available. In this case, aim the remote control unit at the remote control sensor of the device (DVD in this case).
- Connect either the audio or the video output of the device (DVD in the example) and the corresponding audio or video input of the Media Receiver, using a cable with phono plugs. This connection is required in order to use ground in common with the SR cable, because with the SR cable connection the ground connection for signal reference is not available. In the example, the audio L channel is used, but the audio R channel or video can be used instead.
- If the plasma display for a previous model, such as the PDP-433P or PDP-503P, is available, servicing while checking displays or using the menus is possible. For this, connect only the DVI connectors (white) of the Media Receiver and the plasma display. The MDR connector of the Media Receiver must not be used, even though it has the same shape and number of pins, because signals assigned to the connectors



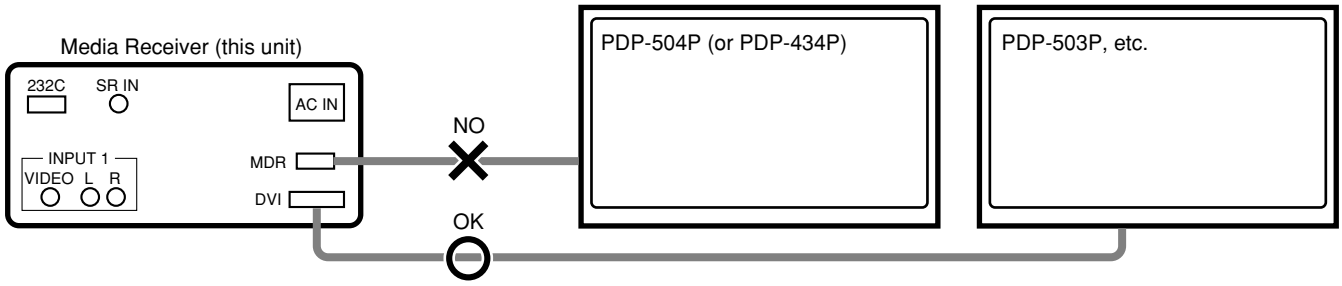
● RS-232C control using a PC

RS-232C control is not available in shipment.
Please set baud rate of PC in 38400bps.
For connection with the PC, use a straight cable.



● Note on connection

If the MDR connector of the PDP-436HD or PDP-506HD-series is used, it is considered that the PDP-436P (or PDP-506P) is connected, and the Media Receiver operates on such precondition, **which may result in a failure of the Media Receiver. Be sure not to connect to the MDR connector.** (Do NOT use the MDR connector when servicing the Media Receiver alone.)



6.3 SERVICE FACTORY MODE

To operate in Service Factory mode, use the supplied remote control unit.

How to enter Service Factory Mode

While in Standby mode, follow the below procedures with the remote control to enter Service Factoy mode.

1. Press the [DISPLAY] key.
2. 3 second counter will start.
3. After 3 seconds, press [LEFT] key.
   (If no operation is done within 10 seconds, the Service Factory routine is cleared, and the standby mode is returned)
4. 5 Second counter will start.
5. Before 5 second counter ends, press [UP] key.
6. Before 5 second counter ends, press [LEFT] key.
7. Before 5 second counter ends, press [RIGHT] key.
8. Before 5 second counter ends, press [POWER] key.
9. If the prodcedure is correct with the given time, the Service Factory mode is up and ready.

* During step 3 to 8, if other operations took place, the Service Factory routine is cleared.

Operation in Service Factory mode

● Functions whose settings are set to OFF

The settings for the following functions are set to OFF when Service Factory mode is entered (including when the "FAY" command is received):

- Two-screen operations (input function set on the main side is selected)
- P ZOOM
- FREEZE
- Detection of the TRAP switch (The log in the EEPROM is retained.) (KUC type only)

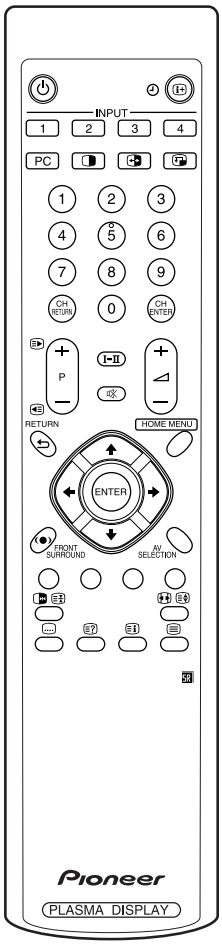
● User data

User data will be treated as follows:

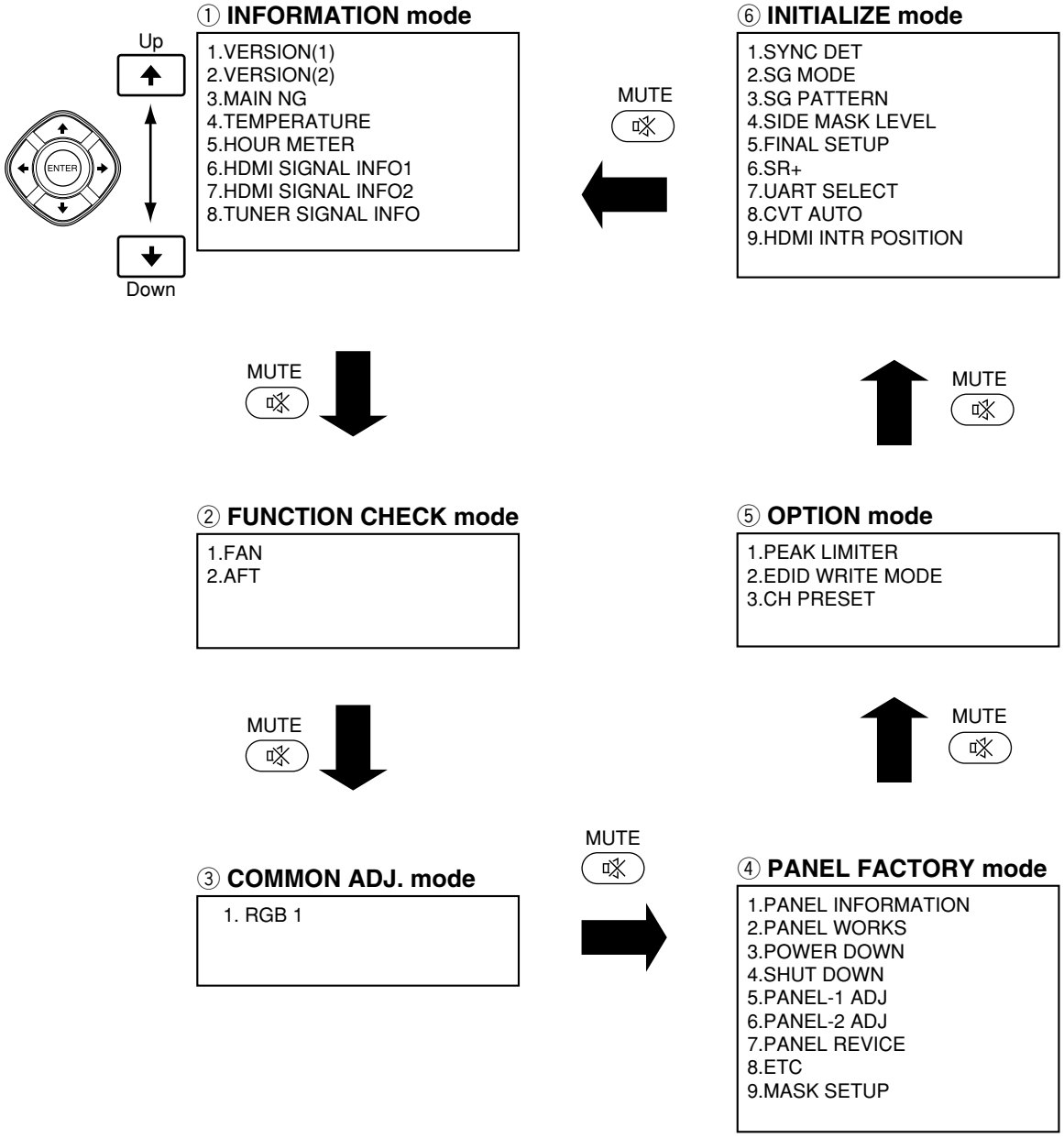
- User data on picture- and audio-quality adjustments are not reflected, and factory-preset data are output (user data will be retained in memory). When the unit enters Factory mode, the current audio-quality adjustment data will still be retained in memory.
- As to data on various settings, user data will be applied to the items that are associated with signal format change (screen size switching, etc.).
- Data on screen (i.e., screen position; meaning clock dividers, and not including data on screen size) are reset to the default values (data stored in memory will be retained). Screen size will be retained.

Remote control codes in Service Factory mode

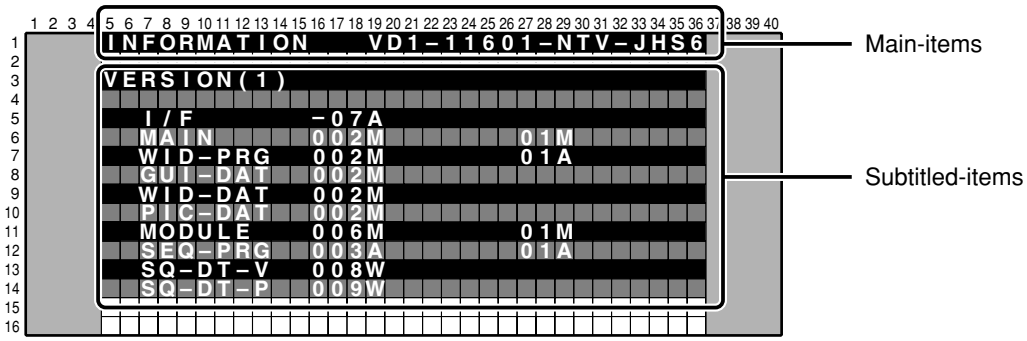
SR Function	Main Function	Remarks
Muting	Switching the main items	Shifting to the next main item (top)
DOWN	Switching the subtitled items	Shifting downward to the next subtitled item
UP	Switching the subtitled items	Shifting upward to the next upper layer
LEFT	Increasing the adjustment value	Increasing the adjustment value
RIGHT	Decreasing the adjustment value	Decreasing the adjustment value
SET	Switching layers	Shifting downward or upward to the next lower or upper layer
INPUT	Selecting input	Shifting the input to the next function
INPUTxx	Selecting input	Switching the input to xx
CH+	Increasing the channel number	Advancing a preset channel (effective when Function is set to TV)
CH-	Decreasing the channel number	Turning a preset channel backward (effective when Function is set to TV)
Numeric keys	Function: TV	Function: TV (previously selected channel number is selected)
POWER	Power OFF	Turning the power off
FACTORY	Factory OFF	Turning Service Factory mode off
MENU	Menu ON	Turning Service Factory mode off and Menu mode on



Changes of the Service Factory menus

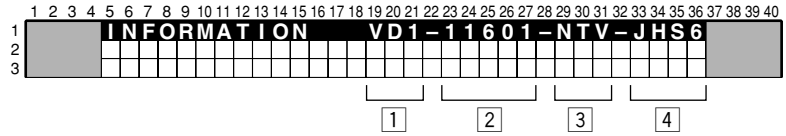


Indications in Service Factory mode



Main-item indications

Four parameters are displayed:



1 Input function

Input Functions	On-Screen Display
INPUT 1- 4	VD 1 - 4
Analog Tuner	AIR
PC	PC

4 Option (Destination, etc.)

Options	On-Screen Display
PDP-R06G	GHS6
PDP-R06C	CHS6

2 SIG mode and screen size

Note: See SIG-Mode Tables. (See next page.)

3 Color system and signal type

Color System and Signal Type		On-Screen Display	Color System and Signal Type		On-Screen Display
NTSC	Composite input	NTV	NTSC	S-connector input	NTS
PAL		PLV	PAL		PLS
PAL N		PNV	PAL N		PNS
PAL M		PMV	PAL M		PMS
SECAM		SCV	SECAM		SCS
4.43NTSC		4NV	4.43NTSC		4NS
BLACK/WHITE		BWV	BLACK/WHITE		BWS
Y / CB / CR		CBR	RGB		RGB
Y / PB / PR		PBR	Digital video signal		DIG

● SIG-Mode Table

The signal mode is displayed in four charecters:

1st and 2nd charecters : Resolutin of the input signal (numerics for the video signals, and alphabetics for the PC signals)
3rd and 4th charecters : Grouping of the V frequencies (refresh rate)
5th charecter : Selection of the screen size by the user is displayed.

SIG-Mode table for video signals (resolutions and V frequencies)

1st and 2nd	3rd and 4th	Signal Type	Fv (Hz)	Fh (kHz)
10	50	SDTV*625i	50.000	15.625
	60	SDTV*525i	60.000	15.750
12	60	SDTV*525i (PAL60)	60.000	15.750
20	50	SDTV*625p	50.000	31.250
	60	SDTV*525p	60.000	31.500
30	50	HDTV*1125i	50.000	28.125
	60	HDTV*1125i	60.000	33.750
40	50	HDTV*750p	50.000	37.500
	60	HDTV*750p	60.000	45.000
50	24	HDTV*1125p	24.000	27.000

Fv: Vertical Frequency, Fh: Horizontal Frequency

SIG-Mode table for PC signals (resolutions and V frequencies)

1st and 2nd	3rd and 4th	Signal Type	Fv (Hz)	Fh (kHz)
C1	70	720x400	70.087	31.469
C2	60	640x480	59.940	31.469
	72		72.809	37.861
	75		75.000	37.500
C4	56	800x600	56.250	35.1556
	60		60.317	37.879
	72		72.188	48.077
	75		75.000	46.875
C7	60	1024x768	60.004	48.363
	70		70.069	56.476
	75		75.029	60.023
C8	56	1280x768	56.250	45.113
	60		59.833	47.986
	70		70.000	56.137

Fv: Vertical Frequency, Fh: Horizontal Frequency

Selection of the screen size by the user is displayed.

5th	Description on GUI	VIDEO	PC	Remarks
0	DOT BY DOT	–	●	
1	4:3	●	●	
2	FULL(FULL1)	●	●	
3	ZOOM	●	–	
4	CINEMA	●	–	
5	WIDE	●	–	
6	FULL 14:9	●	–	
7	CINEMA 14:9	●	–	
8	FULL2	●	●	

●: available, –: not available

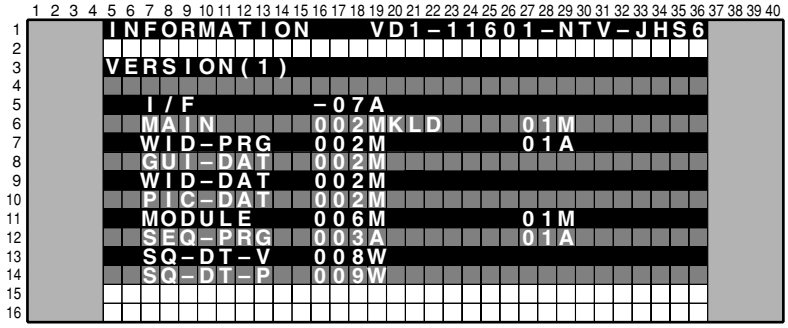
■ Factory Menus

① INFORMATION mode

● Operation items

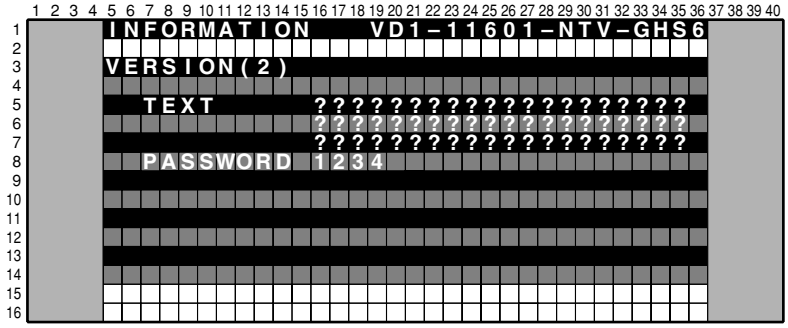
No.	Function / Display	Content	RS-232C
1	VERSION (1)	The flash memory versions for each device are displayed. (common part)	QS1
2	VERSION (2)	The flash memory versions for each device are displayed. (individual part)	QS6
3	MAIN NG	The shutdown generated on Media Receiver side and its time of occurrence are displayed.	QNG
4	TEMPERATURE	Information of temperature and fan status on Media Receiver side are displayed.	QMT
5	HOUR METER	Cumulative power-on time to the Media Receiver is displayed.	–
6	HDMI SIGNAL INFO 1	The file information of HDMI series are displayed.	–
7	HDMI SIGNAL INFO 2		–
8	TUNER SIGNAL INFO	The signal information on TUNER is displayed.	–

1. VERSION (1)



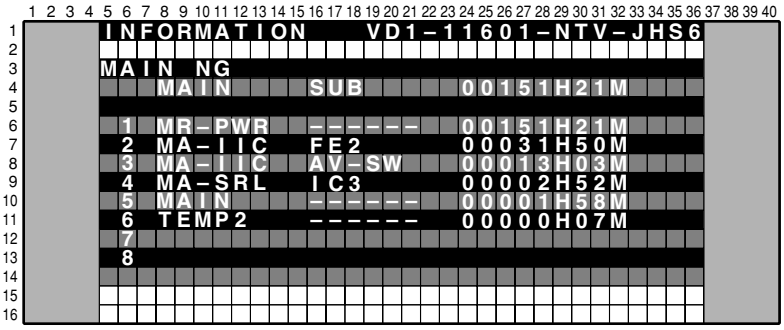
Flash memory on Device	On-Screen Display
IF microcomputer	I/F
Main microcomputer	MAIN
Program for CARRERA-MANTA	WID-PRG
GUI data for CARRERA-MANTA	GUI-DAT
Enhanced data for CARRERA-MANTA.	WID-DAT
Picture Quality data for CARRERA-MANTA	PIC-DAT
Module microcomputer (for the PDP)	MODULE
Program for ASTRA-MANTA (for the PDP)	SEQ-PRG
Sequence data for ASTRA-MANTA Video	SQ-DT-V
Sequence data for ASTRA-MANTA PC	SQ-DT-P

2. VERSION (2)



Device	On - Screen Display	Version Display	Remarks
Teletext ucom Software Version	TEXT	60 character	20 character x 3
User Password	PASSWORD	4 character	

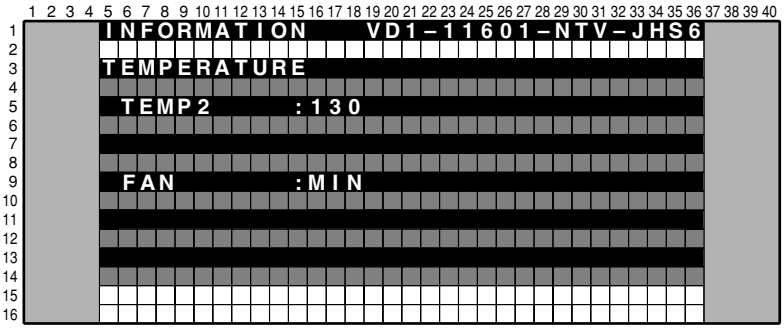
3. MAIN NG



● **Media Receiver NG information**

OSD: MAIN	OSD: SUB	Cause of Shutdown
MODULE	----	Abnormally in Module microcomputer communication
MA-SRL		Abnormally in 3-wire Serial Communication of the Main microcomputer.
	IF	Communication failure of IF microcomputer
	MULTI1	MANTA communication failure (MULIT1)
	I/P	MANTA communication failure (I/P)
	D-SEL	MANTA communication failure (D-SEL)
MA-IIC		Abnormally in Main microcomputer IIC communication
	FE1	Analog Tuner 1 (Front End 1)
	AV-SW	AV Switch
	RGB-SW	RGB Switch
	M-VDEC	Main VDEC
	S-VDEC	Sub VDEC
	ADC	AD/PLL
	HDMI	HDMI
	PLK-T	TMDS Tx
	PLK-R	TMDS Rx
	TX-COM	M2 Communication
	TX-BSY	M2 Busy
	MA-EEP	64k EEPROM
MAIN		Abnormally in Main microcomputer communication
FAN		Fan stopped
TEMP2		Abnormally high temperature of the MR.

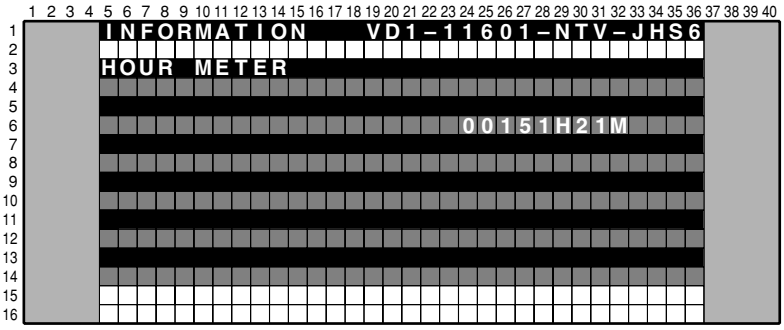
4. TEMPERATURE



TEMP2 : The value read from the temperature sensor built into the Media Receiver is displayed in the range of 000-255. For reference, the approximate value for 60°C is 86 and for 35°C is 67.
Reference: When TEMP2 exceeds 100 (about 78°C), SD LED (Blue) flash 11 times.

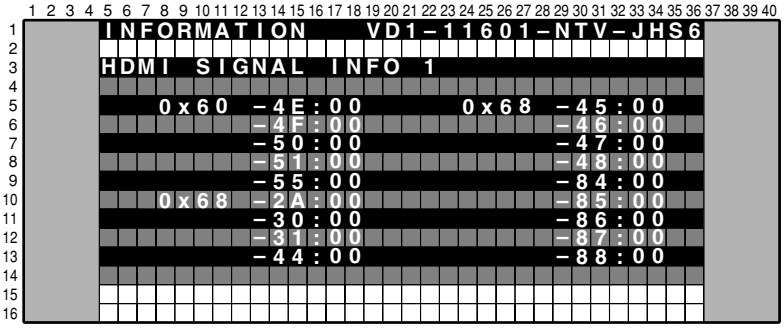
FAN : The value of the Fan output is displayed.
STOP: stopped, MIN: slow speed, MAX: high speed

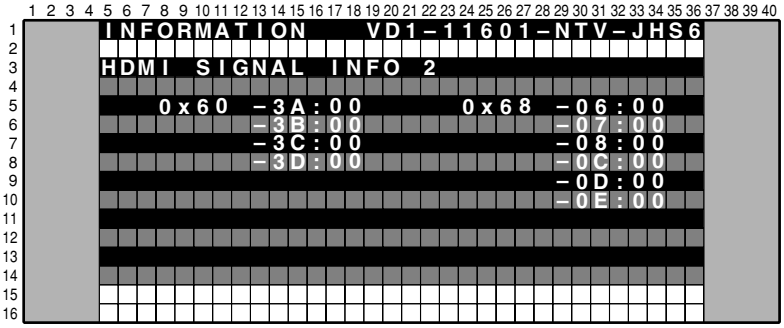
5. HOUR METER



The cumulative power-on time of the Media Receiver is displayed.

6. HDMI SIGNAL INFO



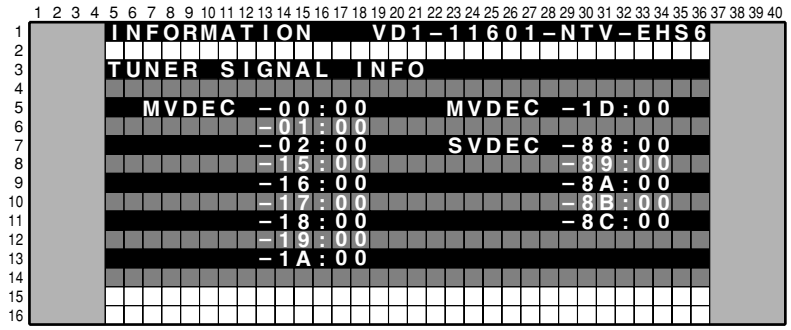


● **Technical examination display (Reading status registers in HDMI receiver and displaying them by HEX value.)**

HDMI SIGNAL INFO 1		
SA		**Context**
0x60	- 4E:	Video DE pixels [7:0]
	- 4F:	Video DE pixels [11:8]
	- 50:	Video DE lines [7:0]
	- 51:	Video DE lines [10:8]
	- 55:	Video status (interlace or progressive, sync polarity)
0x68	- 2A:	Audio in channel status (PCM, copy information etc.)
	- 30:	Audio in SPDIF channel status (sampling frequency)
	- 31:	Audio in SPDIF channel status (sample word length)
	- 44:	AVI InfoFrame data1 (video format etc.)
	- 45:	AVI InfoFrame data2 (colorimetry, aspect ratio)
	- 46:	AVI InfoFrame data3 (video scaling)
	- 47:	AVI InfoFrame data4 (video identification code)
	- 48:	AVI InfoFrame data5 (pixel repeat value for 2880dot)
	- 84:	Audio InfoFrame data1 (channel count, cording type)
	- 85:	Audio InfoFrame data2 (always zero)
	- 86:	Audio InfoFrame data3 (always zero)
	- 87:	Audio InfoFrame data4 (channel / speaker allocation)
	- 88:	Audio InfoFrame data5 (downmix inhibit, level shift value for downmixing)

HDMI SIGNAL INFO 2		
SA		**Context**
0x60	- 3A:	Video full H resolution [7:0]
	- 3B:	Video full H resolution [12:8]
	- 3C:	Video full V lines [7:0]
	- 3D:	Video full V lines [10:8]
0x68	- 06:	N Value for audio clock regeneration method. [7:0]
	- 07:	N Value for audio clock regeneration method. [15:8]
	- 08:	N Value for audio clock regeneration method. [19:16]
	- 0C:	CTS Value for audio clock regeneration method. [7:0]
	- 0D:	CTS Value for audio clock regeneration method. [15:8]
	- 0E:	CTS Value for audio clock regeneration method. [19:16]

7. TUNER SIGNAL INFO



● **Tuner signal information in MVDEC / SVDEC.**

Device	SA	Context
MVDEC	00h	Signal distinction 1
	01h	Signal distinction 2
	02h	Flag detection output
	15h	Noise level detection 1
	16h	Noise level detection 2
	17h	Non - standard signal detection
	18h	Subcarrier signal detection
	19h	ACC data output
	1Ah	ACC information output
	1Dh	Input signal mode
SVDEC	88h	Status register 1 (TV/VCR status)
	89h	Status register 2 (Macrovision detection etc)
	8Ah	Status register 3 (Front-end AGC gain value)
	8Bh	Status register 4 (Subcarrier to horizontal (SCH) phase)
	8Ch	Status register 5 (signal distinction)

② FUNCTION CHECK mode

● **Operation items**

No.	Display	Content	RS-232C
1	FAN <=>	Control FAN speed for Force.	—
2	AFT <=>	Control AFT Lock.	—

③ COMMON ADJ. mode

RGB1

Only for the technical use.

④ PANEL FACTORY mode

● **Operation items**

No.	Function / Display
1	PANEL INFORMATION
2	PANEL WORKS
3	POWER DOWN
4	SHUT DOWN
5	PANEL-1 ADJ
6	PANEL-2 ADJ
7	PANEL REVISE
8	ETC
9	MASK SETUP

Refer to the service manual of the PDP-506P/436P.

⑤ OPTION mode

● **Operation items**

No.	Function/Display	Content	RS-232C
1	PEAK LIMITTER ⇔	Control Peak Limitter (Select ON/OFF)	—
2	EDID WRITE MODE ⇔	Control EDID WRITE MODE (Select DISABLE/ENABLE)	—
3	CH PRESET ⇔	Only for the productical use.	—

⑥ INITIALIZE mode

● **Operation items**

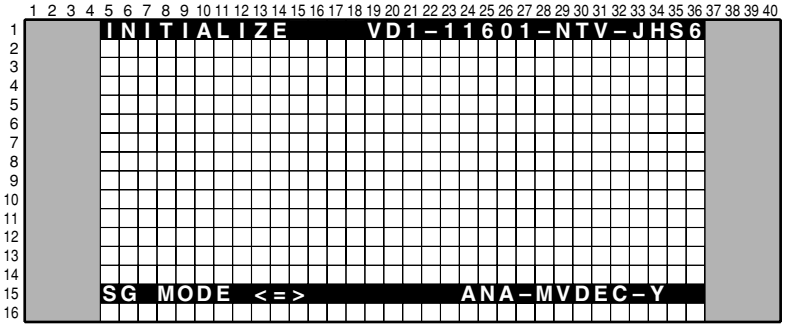
No.	Function/Display	Content	RS-232C
1	SYNC DET (+)	Only for the technical use.	–
2	SG MODE ⇔	Paired SG_MODE with SG_PATTERN. Select SG Route.	–
3	SG PATTERN ⇔	Paired SG_MODE with SG_PATTERN. Select SG Pattern.	–
4	SIDE MASK LEVEL (+)	Adjust Side Mask Color (R, G, B).	BSL GSL RSL
5	FINAL SETUP (+)	Initialize flash memories on virgin product status	FST
6	SR+ ⇔	Select SR+ mode or UART SELECT mode.	–
7	UART SELECT ⇔	Select boud Rate on RS-232C Communication	–
8	CVT AUTO ⇔	Only for the productical use.	–
9	HDMI INTR POSITION (+)	Only for the technical use.	–

1. SYNC DET(+)

Only for the technical use.

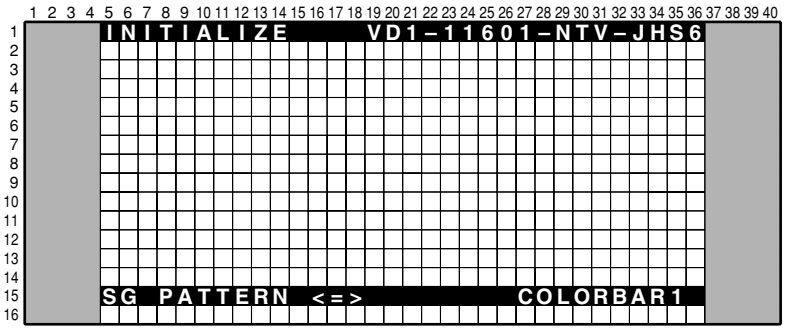
2. SG MODE

The route of the Test Signal from the MVDEC is chosen by this function.
After setting this function, SG pattern should be set.



No.	Display	Function
1	SG OFF	SG is set to OFF
2	DIG MVDEC YCBCR	Digital output (YCbCr)
3	ANA MVDEC RGB	Analog output to the RGB SW (RGB)
4	ANA SVDEC Y	Analog output to the Video SW (Y)
5	ANA MVDEC Y	Analog output to the Video SW (Y)
6	ANA AD YCBCR	Analog output to the RGB SW (YCbCr)
7	ANA AD RGB	Analog output to the RGB SW (RGB)

3. SG PATTERN

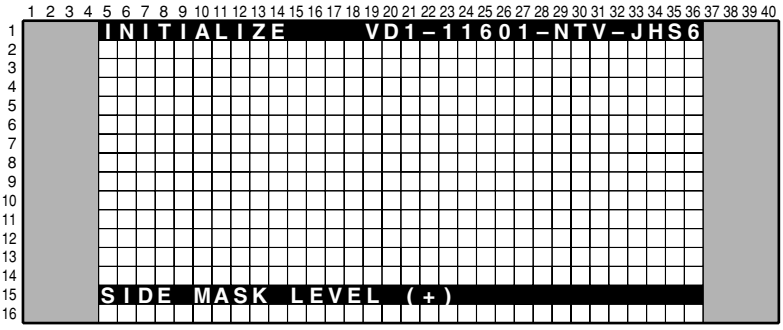


No.	Function/Display	SG Pattern (Brightness IRE Level/Color)	No.	Function/Display	SG Pattern (Brightness IRE Level/Color)
1	COLOR BAR1	Colorbar (75%)	11	RASTER4	Raster (75% Green)
2	COLOR BAR2	Colorbar (100%)	12	RASTER5	Raster (75% Magenta)
3	RAMP1	Ramp (100% white)	13	RASTER6	Raster (75% Red)
4	RAMP2	Ramp (100% Yellow)	14	RASTER7	Raster (75% Blue)
5	RAMP3	Ramp (75% Green)	15	RASTER8	Raster (-% Black)
6	RAMP4	Ramp (75% Red)	16	10STEP1	10STEP (100% white)
7	RAMP5	Ramp (75% Blue)	17	10STEP2	10STEP (100% Yellow)
8	RASTER1	Raster (100% White)	18	10STEP3	10STEP (75% Green)
9	RASTER2	Raster (75% Yellow)	19	10STEP4	10STEP (75% Red)
10	RASTER3	Raster (75% Cyanide)	20	10STEP5	10STEP (75% Blue)

Important notice of the Test Signal mode (SG mode, SG pattern)

- The route switching should be done correctly in the factory mode.
- Y or G signal from SG should be input to the AVI terminal of the MVDEC when the SG signal is output.
- The function of the blanking offset (50 IRE) should be OFF during the SG mode.
- The setting of the Y/C separation function should be set to the NTSC during the SG mode
- Only the RGB and Component signals can be output during SG mode, so only the Y signal is input at the CVBS and S signal mode, thus the picture is composed in black and white color. This isn't a trouble.
- The SG mode 7 (ANA AD RGB) is only for the factory mode. Therefore some probrem (strange color, unstable brightness etc.) might be happened.

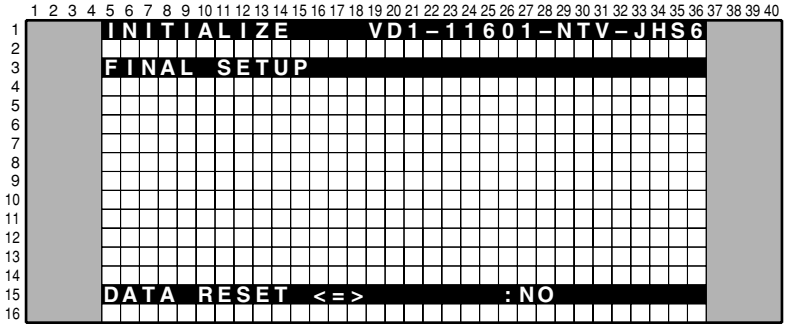
4. SIDE MASK LEVEL



Level of the side mask (R, G, and B) can be adjusted by using this menu.
The input signal is necessary to adjust it.

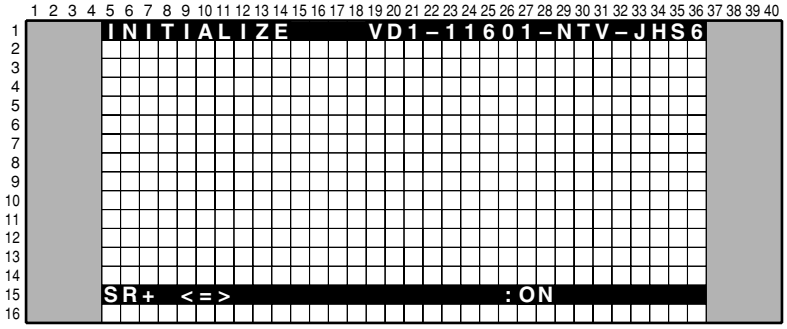
No.	Display	Context	RS-232C
1	R MASK LEVEL ⇔	Adjust Side Mask R (range :000-255)	RSL
2	G MASK LEVEL ⇔	Adjust Side Mask G (range :000-255)	GSL
3	B MASK LEVEL ⇔	Adjust Side Mask B (range :000-255)	BSL

5. FINAL SETUP



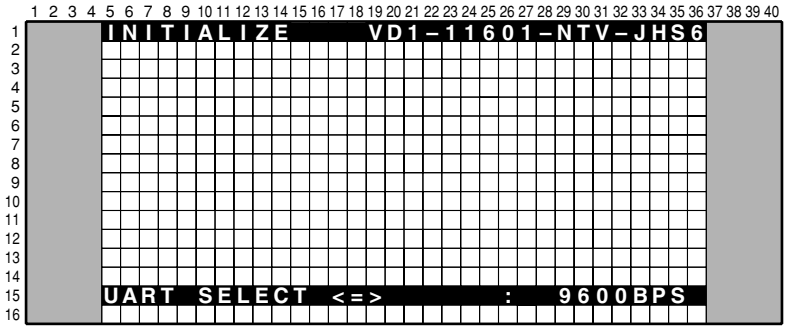
The value of all memorized data are set to shipment status. If the ENTER key is kept on pressing for 5 second when the status of this menu is YES, final setup will be done.

6. SR+



SR+ function → ON, RS-232C function → OFF

7. UART SELECT



This function can be selected when the SR+ function is OFF.

Option No.	Display	Operation / Control	RS-232C
1 (Initial setting)	----	To Set to SR+ (9600bps)	SR+ is ON
2	1200	To Set to RS-232C (1200bps)	SR+ is OFF
3	2400	To Set to RS-232C (2400bps)	SR+ is OFF
4	4800	To Set to RS-232C (4800bps)	SR+ is OFF
5	9600	To Set to RS-232C (9600bps)	SR+ is OFF
6	19200	To Set to RS-232C (19200bps)	SR+ is OFF
7	38400	To Set to RS-232C (38400bps)	SR+ is OFF

6.4 LIST OF RS-232C COMMANDS

RS-232C commands can be used in Service Factory mode. Before using RS-232C commands, it is necessary to change the factory presetting.
Also the RS-232C commands for the panle is not listed. Please refer to panle's service manual.

Command	Operation	Remarks
B		
BSL	Adjust side mask B	
C		
CNG	Clearing MR NG information	
CHR	Clearing MR Hour meter	
D		
DW*	Decreasing the adjustment value by*	*:1-9, 0 (0 means 10), F (making the adjustment value the minimum)
F		
FAN	Turning Service Factory mode off.	
FAY	Turning Service Factory mode on.	
FST	Final Set Up	
G		
GSL	Adjusting side mask G	
I		
INA	Selection of tuner for terrestrial analog signals.	
INC***	Selection of tuner for terrestrial digital signals.	
INH	Selection of SD card/PCMCIA card	
INPS01	Input selection: input 1	
INPS02	Input selection: input 2	
INPS03	Input selection: input 3	
INPS04	Input selection: input 4	
INPS05	Input selection: input 5	
O		
OSDS00	Turning On-Screen Display off	Prohibit On-Screen Display.
OSDS01	Turning On-Screen Display on	Permit On-Screen Display.
P		
POF	Turning the power off.	
PON	Turning the power on.	
Q		
QS1	Obtaining the version data for each device.	
QS6	Obtaining the any version.	
QMT	Obtaining the MR temperature information.	
QNG	Obtaining NG data of the MR.	
R		
RSL	Adjustment od side mask R	
U		
UP*	Increasing the adjustment value by *	*:1-9, 0 (0 means 10), F (making the adjustment value the maximum)
Z		
ZME	Initializing of the EEPROM video data	

6.5 OUTLINE OF COMMANDS

If you want to see version information (ex. QS1,QS6,Factory Menu), Please see 10 seconds after starting.

QS1: Returning information on the module and the version of the software.

Order	Part	Data Content	Size	Remarks
0	-	Received Command Name on MR	3 byte	'QS1' only
1	MDU	Display Information 1	1 byte	
2		Display Information 2	1 byte	
3		Display Information 3	1 byte	
4		Display Information 4	1 byte	
5		Display Information 5	1 byte	
6		Boot Version of Module microcomputer.	3 byte	
7		Program Version of Module microcomputer.	8 byte	
8		Boot Version of ASTRA-MANTA	3 byte	
9		Program Version of ASTRA-MANTA	8 byte	
10		Sequence Version (43VIDEO)	4 byte	
11		Sequence Version (43PC)	4 byte	
12		Sequence Version (50VIDEO)	4 byte	
13		Sequence Version (50PC)	4 byte	
14	MR	, (comma)	1 byte	
15		MR Information 1	1 byte	
16		MR Information 2	1 byte	
17		MR Information 3	1 byte	
18		MR Information 4	1 byte	
19		Version of IF microcomputer	4 byte	
20		Version of Main microcomputer	8 byte	
21		Boot Version of Main microcomputer	4 byte	
22		Program Version of CARRERA-MANTA	8 byte	
23		Boot Version of CARRERA-MANTA	4 byte	
24		GUI Version of CARRERA-MANTA	8 byte	
25		Enhanced Version of CARRERA-MANTA	8 byte	
26		PIC Version of CARRERA-MANTA	8 byte	

QS6: Returning information of the Flash Device.

Order	Data Content	Size	Remarks
0	Received Command Name on MR	3 byte	'QS6' only
1	Version of Text	60 byte	
2	User Password	4 byte	

QMT: Returning information of MR temperature and FAN speed.

Order	Data Content	Size	Remark
1	Received Command Name on MR	3 byte	'QMT' only
2	MR Temperature	3 byte	
3	MR FAN Speed	1 byte	0: STOP 1: MIN 2: MAX

QNG: Returning data (logs keep on Main microcomputer) on shutdown of Media Receiver.

Order	Data	Size	Context
0	Received Command Name on MR	3 byte	'QNG' only
1	Latest NG data	1 byte	
2	Data of subcategory for the latest NG	1 byte	
3	Data of MR hour meter for the latest NG	7 byte	
4	Data of temperature for the latest NG	3 byte	
5	2nd latest NG data	1 byte	
6	Data of subcategory for the 2nd latest NG	1 byte	
7	Data of MR hour meter for the 2nd latest NG	7 byte	
8	Data of temperature for the 2nd latest NG	3 byte	
:	:	:	
29	7th latest NG data	1 byte	
30	Data of subcategory for the 8th latest NG	1 byte	
31	Data of MR hour meter for the 8th latest NG	7 byte	
32	Data of temperature for the 8th latest NG	3 byte	

• Details on the NG data and subcategory

Data	Cause of Shutdown	Remarks
0	Normal	
1	Failure of communication to Module microcomputer	
2	3-wire Serial Communication of Main microcomputer.	Subcategory ⇒ 1
3	IIC Communication failure of Main microcomputer	Subcategory ⇒ 2
4	Communication failure of Main microcomputer &Unknown Error	
5	Fan stopped	
6	Abnormally high temperature at MR.	
8	Abnormally in RST2 of MR (power decrease of DC-DC converter)	

• Data on Subcategories for failure in 3-wire serial communication of Main microcomputer (subcategory 1)

Data	Cause of Shutdown	Remarks
0	Non subcategory	
1	Communication failure of IF microcomputer	Power OFF
2	MANTA communication failure (MULIT1)	Power OFF
3	MANTA communication failure (MULIT2)	Reserved
4	MANTA communication failure (I/P)	
5	MANTA communication failure (D-SEL)	

• Data on Subcategories for failure in IIC communication of Main microcomputer (subcategory 2)

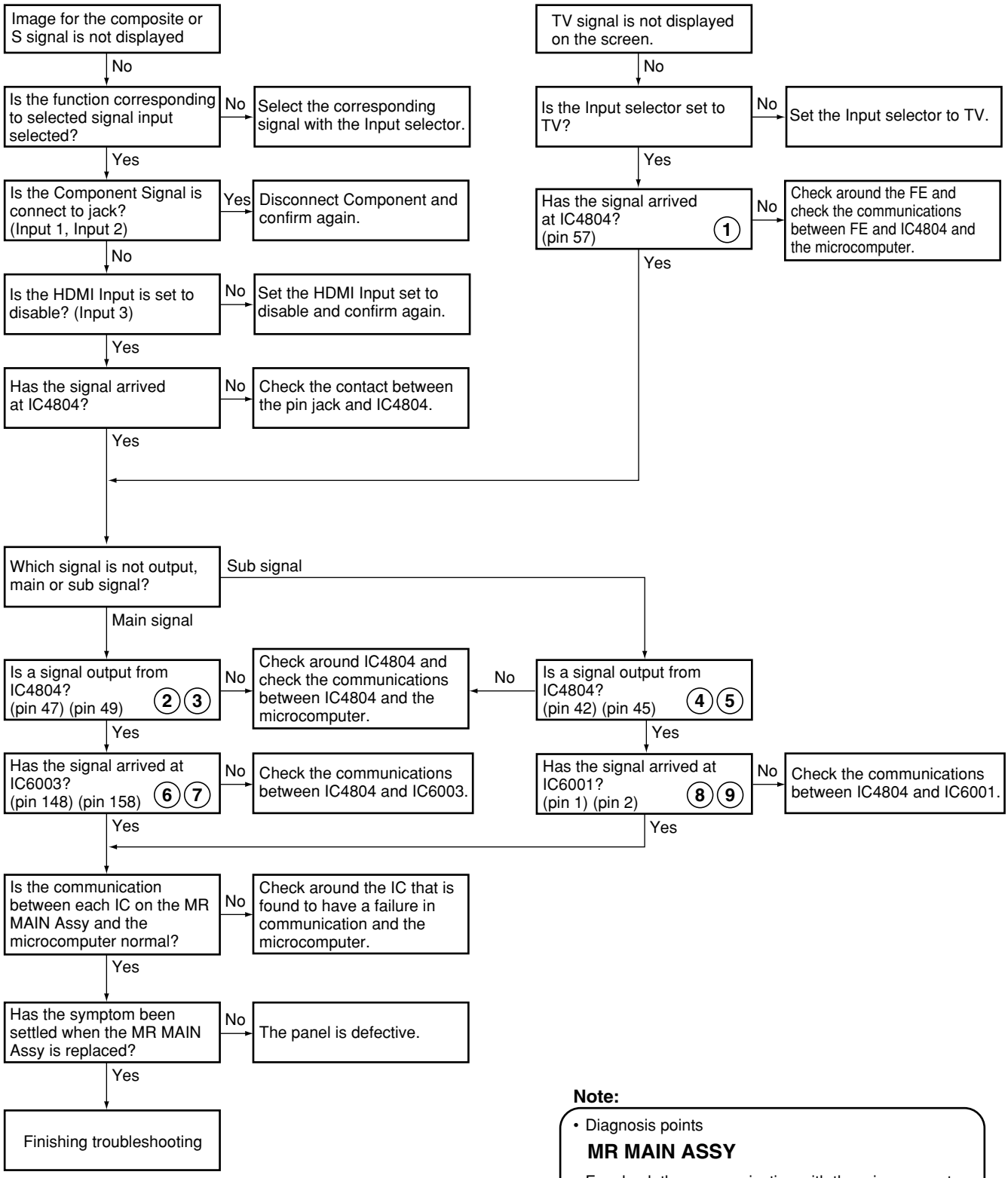
Data	Cause of Shutdown	Data	Cause of Shutdown
0	Non subcategory	A	AD/PLL
1	Analog Tuner 1 (Front End 1)	B	HDMI
4	AV Switch	C	TMDS Tx
5	RGB Switch	D	TMDS Rx
8	Main VDEC	E	M2 Communication
9	Sub VDEC	F	M2 Busy
		G	64k EEPROM

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 TROUBLESHOOTING

● **Image for the composite or S or TV signal is not displayed**



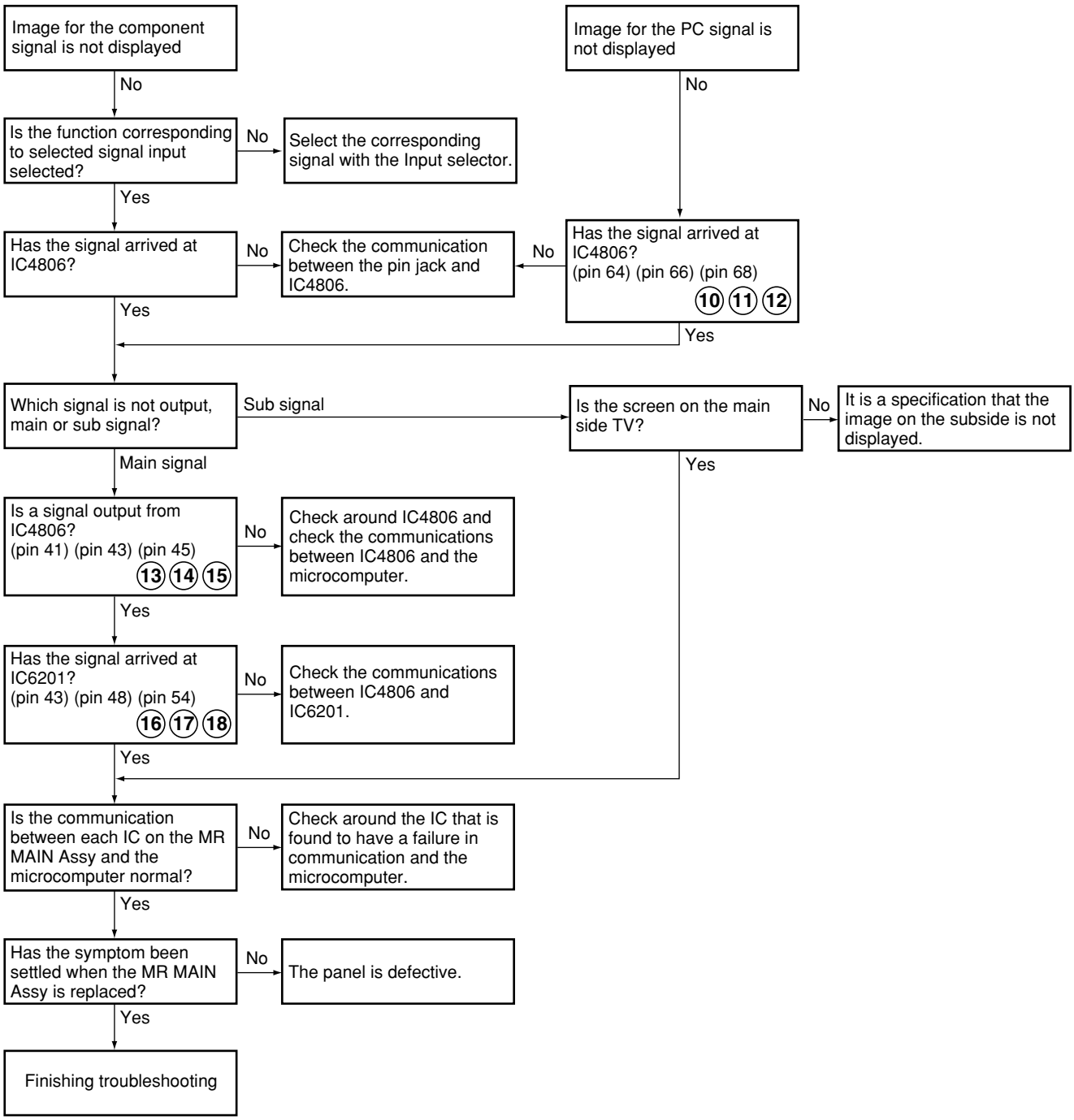
Note:

- Diagnosis points

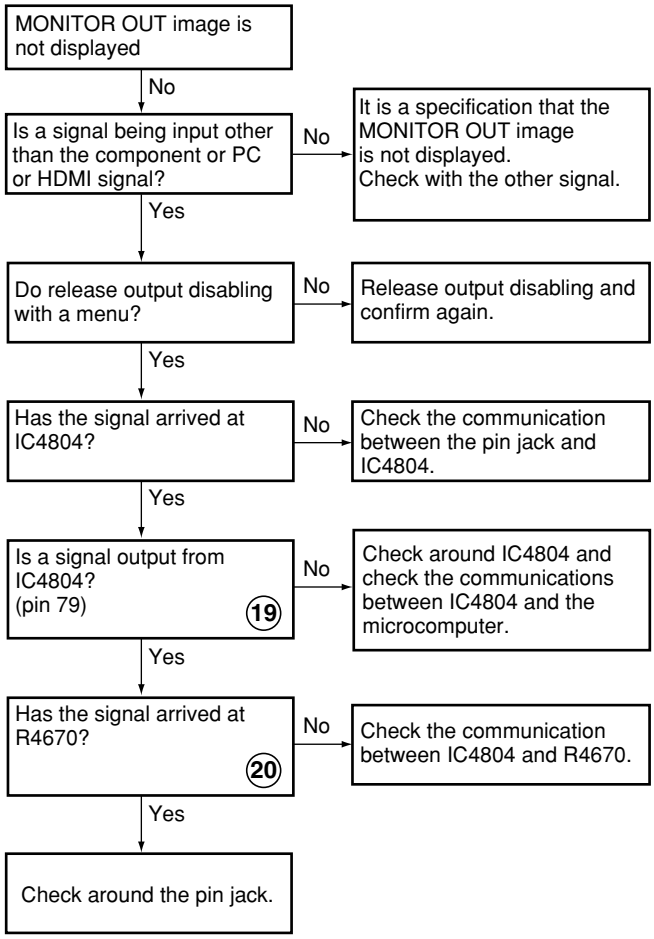
  MR MAIN ASSY

- For check the communication with the microcomputer, refer to the section 6.3 SERVICE FACTORY MODE.
- The encircled numbers denote measuring point in the Waveforms for Troubleshooting.

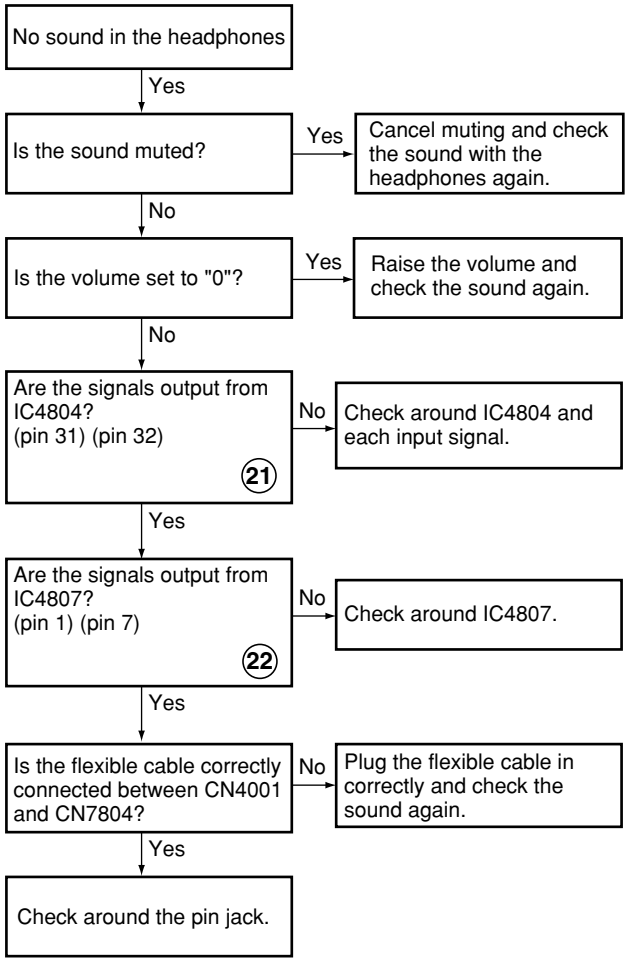
● Image for the component or PC signal is not displayed



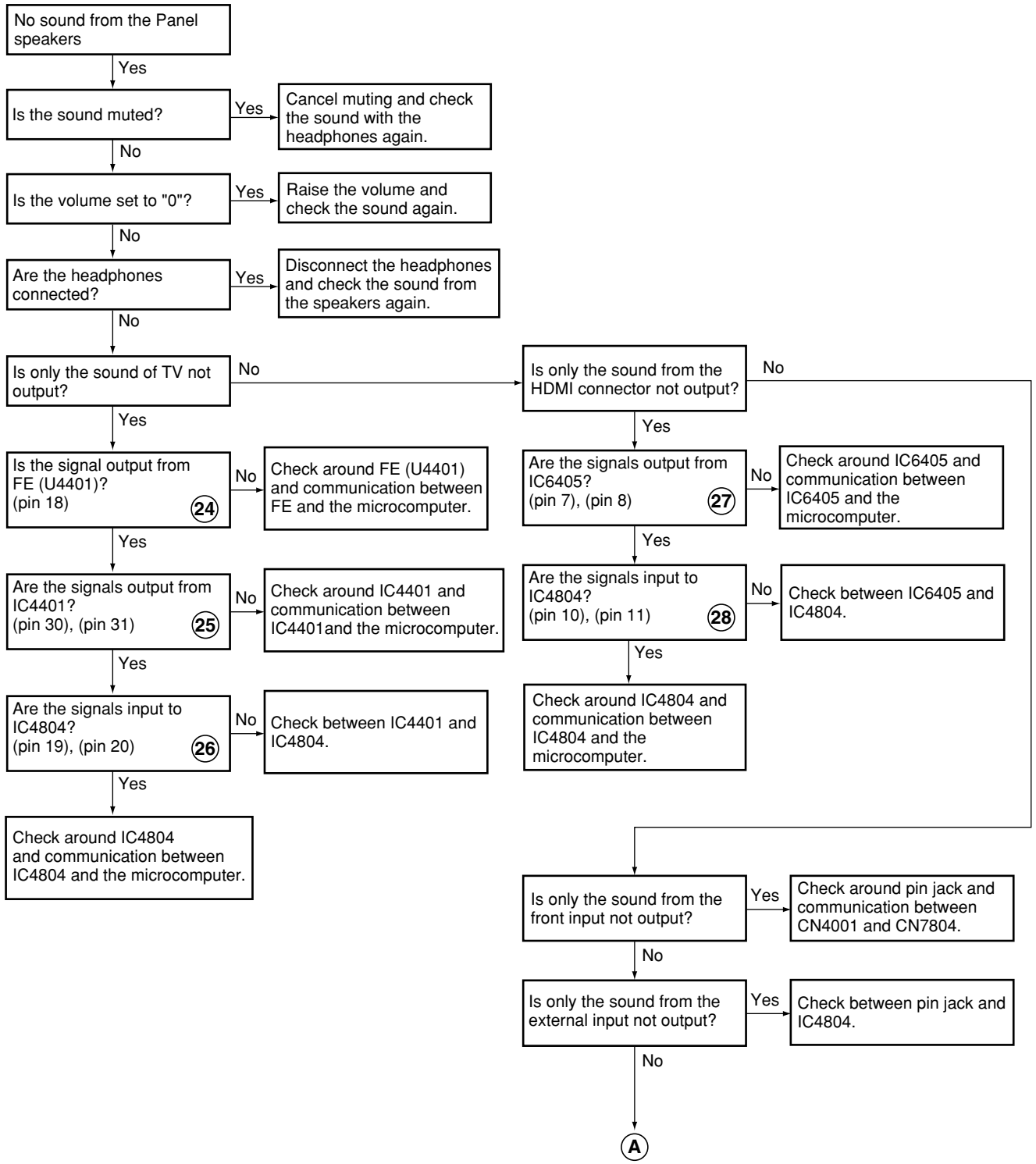
● MONITOR OUT image is not displayed



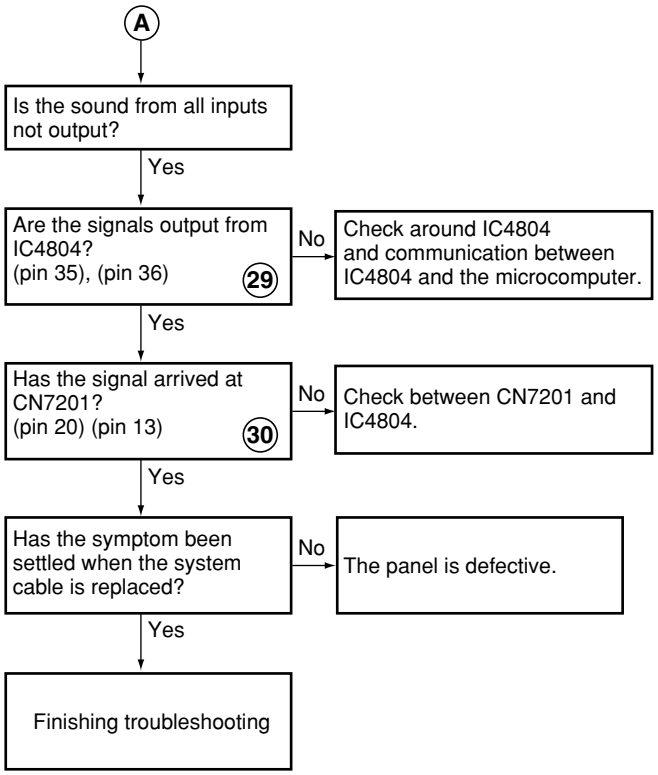
● No sound from the headphones and audio output



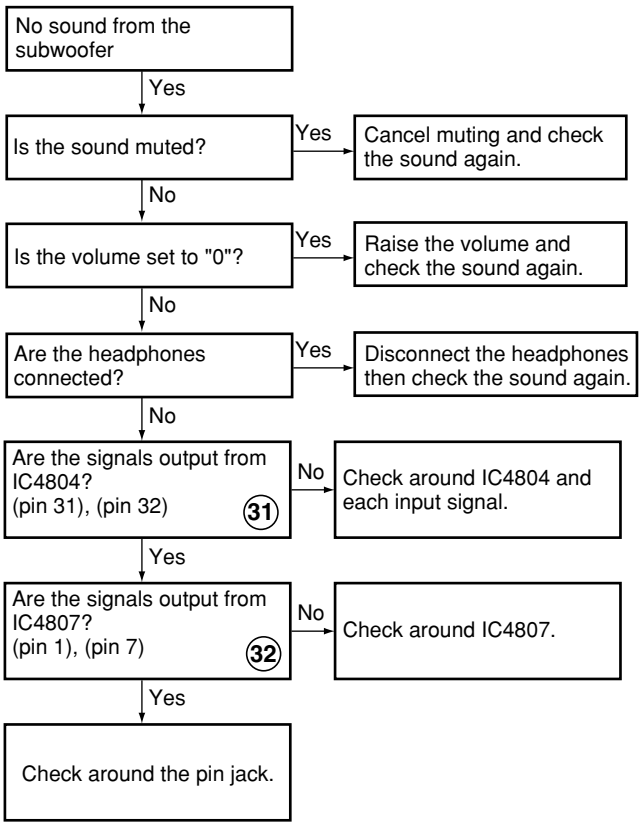
● No sound from the Panel speakers (1/2)



● No sound from the speakers (2/2)



● No sound from the subwoofer

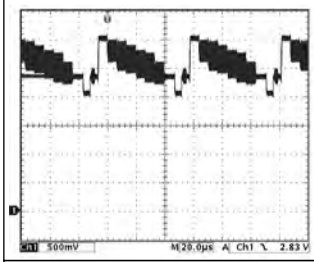


● Waveforms for Troubleshooting

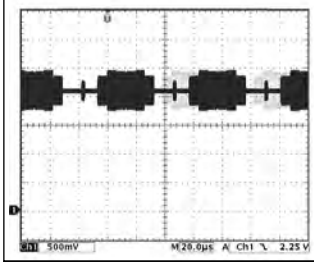
MR MAIN ASSY

• Color-bar input unless otherwise noted

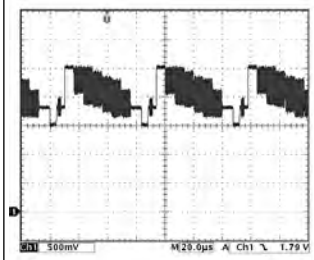
① IC4804-pin 57
V: 500mV/div. H: 20µsec/div.



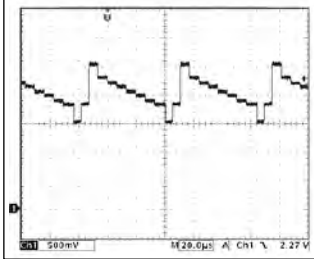
② IC4804-pin 47 S-Video
V: 500mV/div. H: 20µsec/div.



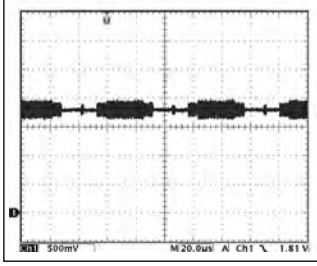
③ IC4804-pin 49 Composite
V: 500mV/div. H: 20µsec/div.



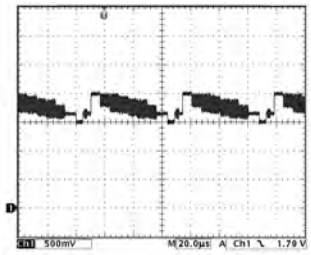
IC4804-pin 49 S-Video
V: 500mV/div. H: 20µsec/div.



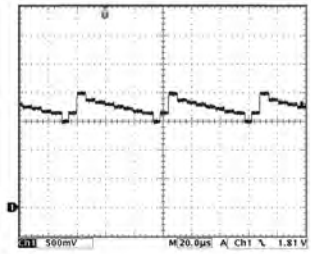
④ IC4804-pin 42 S-Video
V: 500mV/div. H: 20µsec/div.



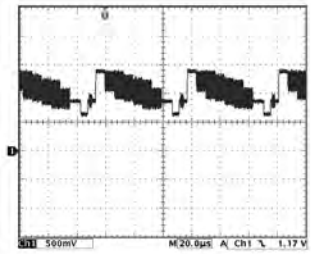
⑤ IC4804-pin 45 Composite
V: 500mV/div. H: 20µsec/div.



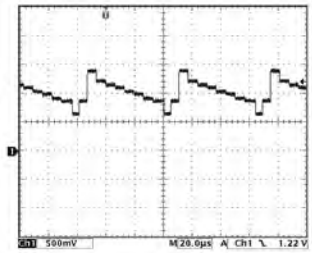
IC4804-pin 45 S-Video
V: 500mV/div. H: 20µsec/div.



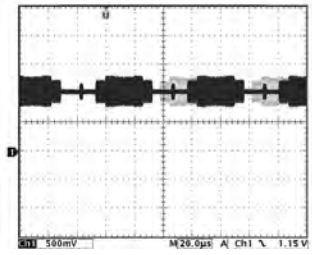
⑥ IC6003-pin 148 Composite
V: 500mV/div. H: 20µsec/div.



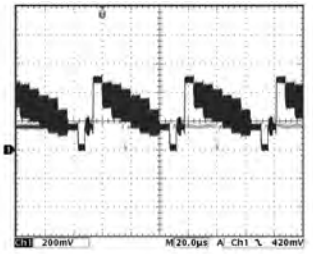
IC6003-pin 148 S-Video
V: 500mV/div. H: 20µsec/div.



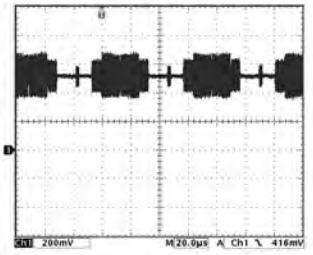
⑦ IC6003-pin 158 S-Video
V: 500mV/div. H: 20µsec/div.



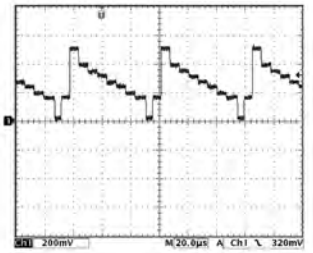
⑧ IC6001-pin 1 Composite
V: 200mV/div. H: 20µsec/div.



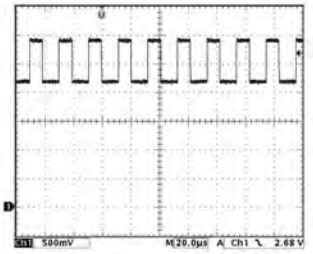
IC6001-pin 1 S-Video
V: 200mV/div. H: 20µsec/div.



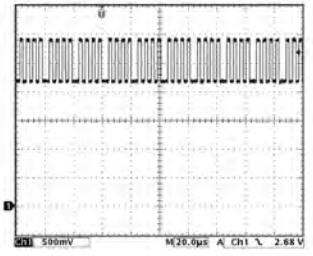
⑨ IC6002-pin 2 S-Video
V: 200mV/div. H: 20µsec/div.



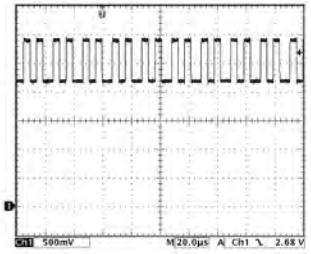
⑩ IC4806-pin 64 PC
V: 500mV/div. H: 20µsec/div.



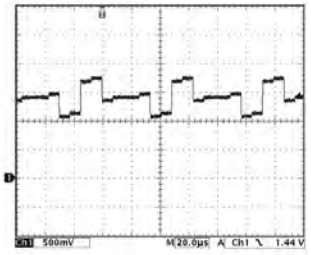
⑪ IC4806-pin 66 PC
V: 500mV/div. H: 20µsec/div.



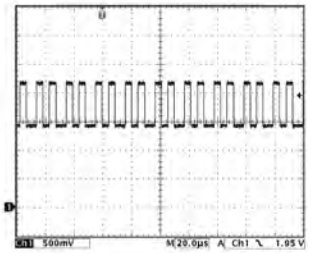
⑫ IC4806-pin 68 PC
V: 500mV/div. H: 20µsec/div.



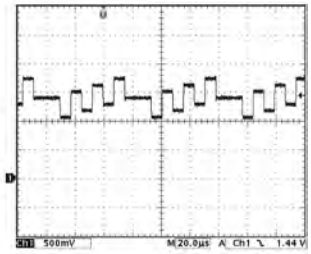
⑬ IC4806-pin 41 Component
V: 500mV/div. H: 20µsec/div.



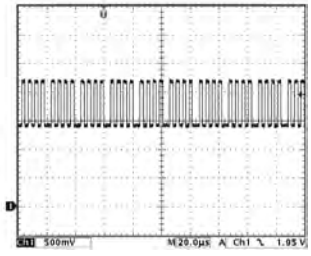
IC4806-pin 41 PC
V: 500mV/div. H: 20µsec/div.



⑭ IC4806-pin 43 Component
V: 500mV/div. H: 20µsec/div.

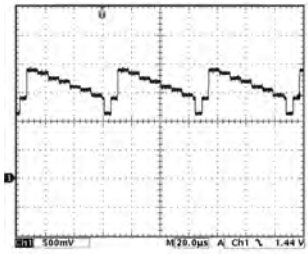


IC4806-pin 43 PC
V: 500mV/div. H: 20µsec/div.

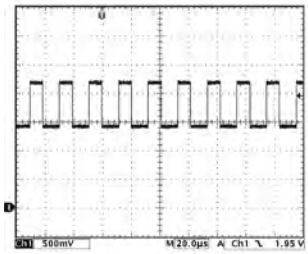


• Color-bar input unless otherwise noted

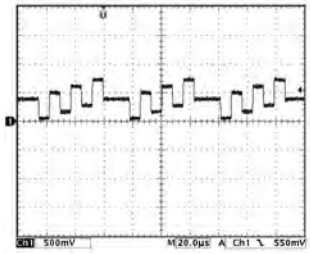
(15) IC4806-pin 45 Component
V: 500mV/div. H: 20µsec/div.



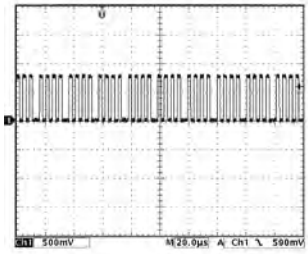
IC4806-pin 45 PC
V: 500mV/div. H: 20µsec/div.



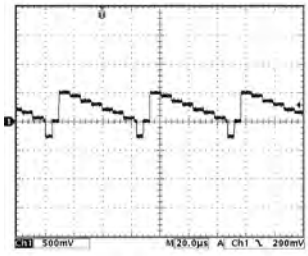
(16) IC6201-pin 43 Component
V: 500mV/div. H: 20µsec/div.



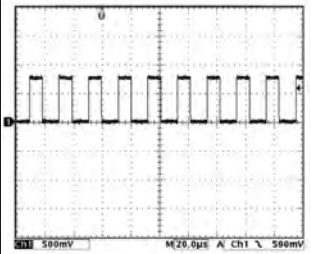
IC6201-pin 43 PC
V: 500mV/div. H: 20µsec/div.



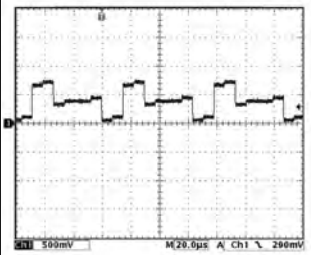
(17) IC6201-pin 48 Component
V: 500mV/div. H: 20µsec/div.



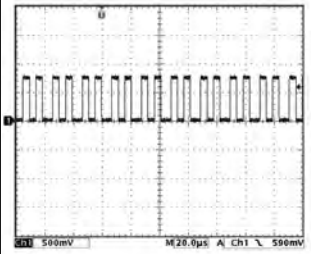
(17) IC6201-pin 48 PC
V: 500mV/div. H: 20µsec/div.



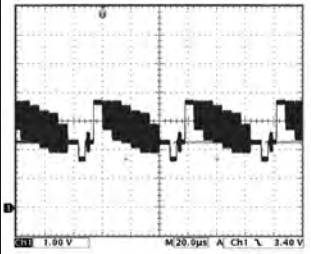
(18) IC6201-pin 54 Component
V: 500mV/div. H: 20µsec/div.



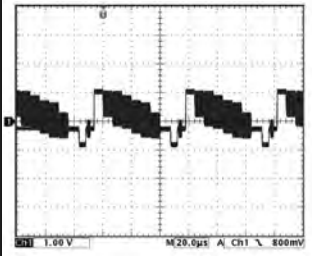
IC6201-pin 54 PC
V: 500mV/div. H: 20µsec/div.



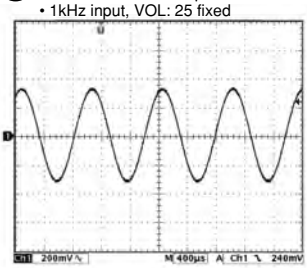
(19) IC4804-pin 79
V: 1V/div. H: 20µsec/div.



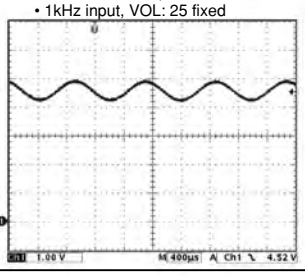
(20) R4670
V: 1V/div. H: 20µsec/div.



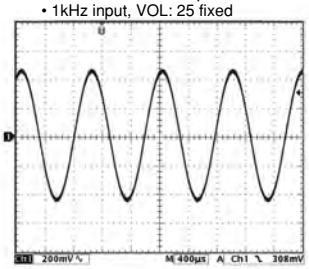
(21) IC4804-pins 31, 32 AC
V: 200mV/div. H: 400µsec/div.
• 1kHz input, VOL: 25 fixed



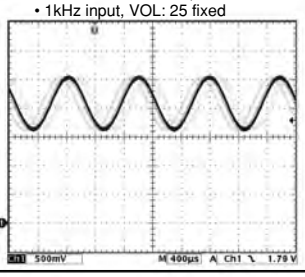
IC4804-pins 31, 32 DC
V: 1V/div. H: 400µsec/div.
• 1kHz input, VOL: 25 fixed



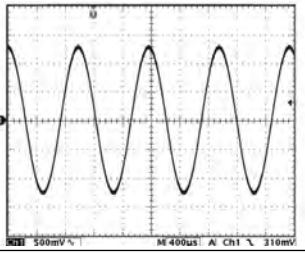
(22) IC4807-pins 1, 7 AC
V: 200mV/div. H: 400µsec/div.
• 1kHz input, VOL: 25 fixed



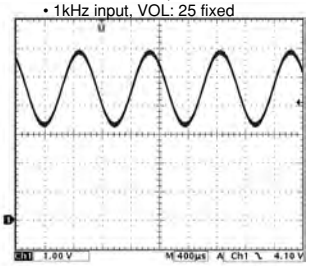
IC4807-pins 1, 7 DC
V: 500mV/div. H: 400µsec/div.
• 1kHz input, VOL: 25 fixed



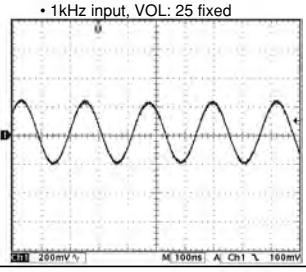
(23) IC4804-pins 33, 34 AC
V: 500mV/div. H: 400µsec/div.
• 1kHz input, VOL: 25 fixed



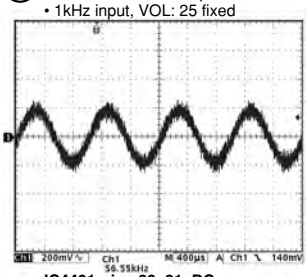
(23) IC4804-pins 33, 34 DC
V: 1V/div. H: 400µsec/div.
• 1kHz input, VOL: 25 fixed



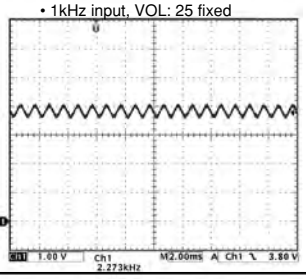
(24) U4401-pin 18=C4403
V: 200mV/div. H: 100nsec/div.
• 1kHz input, VOL: 25 fixed



(25) IC4401-pins 30, 31 AC
V: 200mV/div. H: 400µsec/div.
• 1kHz input, VOL: 25 fixed

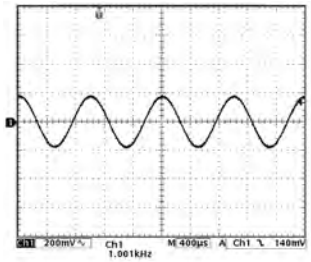


IC4401-pins 30, 31 DC
V: 1V/div. H: 2msec/div.
• 1kHz input, VOL: 25 fixed

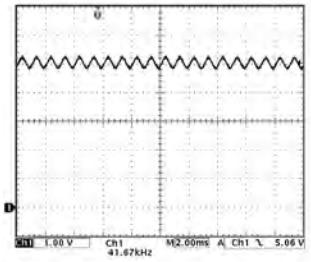


• 1kHz input, VOL: 25 fixed unless otherwise noted

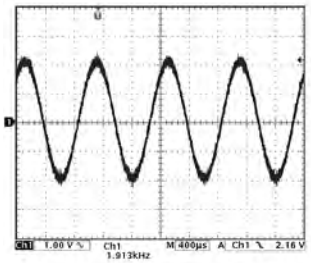
26 **IC4804-pins 19, 20 AC**
V: 200mV/div. H: 400µsec/div.



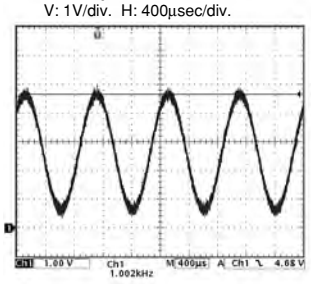
IC4804-pins 19, 20 DC
V: 1V/div. H: 2msec/div.



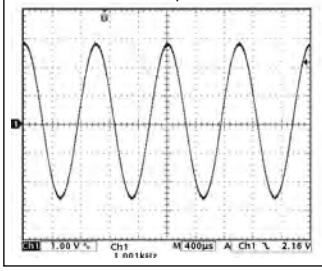
27 **IC6405-pins 7, 8 AC**
V: 1V/div. H: 400µsec/div.



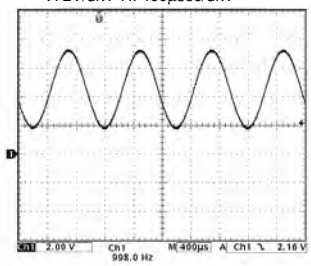
IC6405-pins 7, 8 DC
V: 1V/div. H: 400µsec/div.



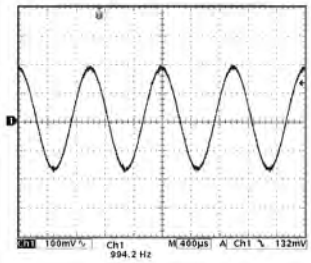
28 **IC4804-pins 10, 11 AC**
V: 1V/div. H: 400µsec/div.



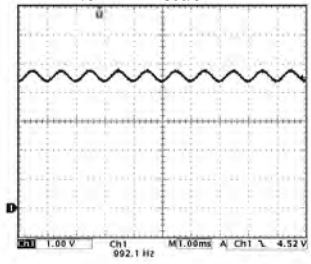
28 **IC4804-pins 10, 11 DC**
V: 2V/div. H: 400µsec/div.



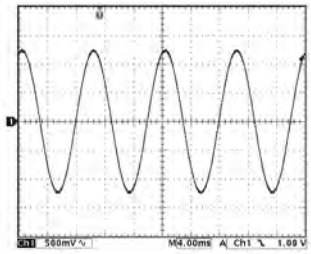
29 **IC4804-pins 35, 36 AC**
V: 100mV/div. H: 400µsec/div.



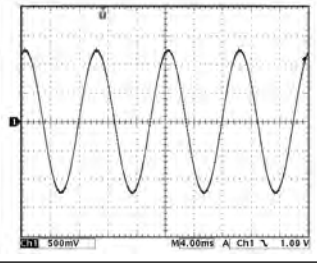
IC4804-pins 35, 36 DC
V: 1V/div. H: 1msec/div.



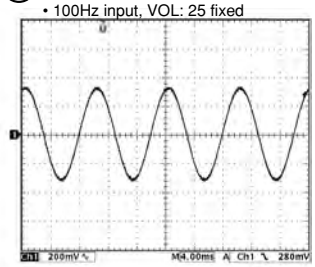
30 **CN7201-pins 13, 20 AC**
V: 500mV/div. H: 4msec/div.



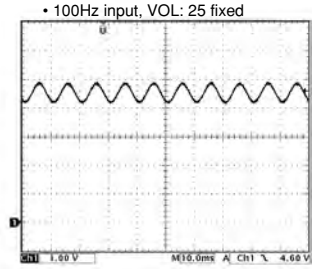
CN7201-pins 13, 20 DC
V: 500mV/div. H: 4msec/div.



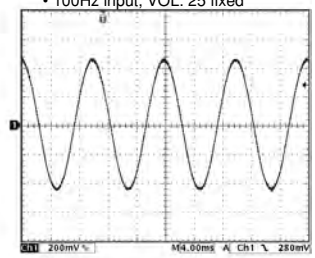
31 **IC4804-pins 31, 32 AC-SUBWOO**
V: 200mV/div. H: 4msec/div.
• 100Hz input, VOL: 25 fixed



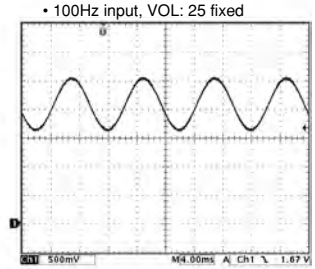
IC4804-pins 31, 32 DC-SUBWOO
V: 1V/div. H: 10msec/div.
• 100Hz input, VOL: 25 fixed



32 **IC4808-pins 1, 7 AC-SUBWOO**
V: 200mV/div. H: 4msec/div.
• 100Hz input, VOL: 25 fixed



IC4808-pins 1, 7 DC-SUBWOO
V: 500mV/div. H: 4msec/div.
• 100Hz input, VOL: 25 fixed



7.1.2 DISASSEMBLY

Note : Even if the unit shown in the photos and illustrations in this manual may differ from your product, the procedures described here are common.

1 Metal Bonnet

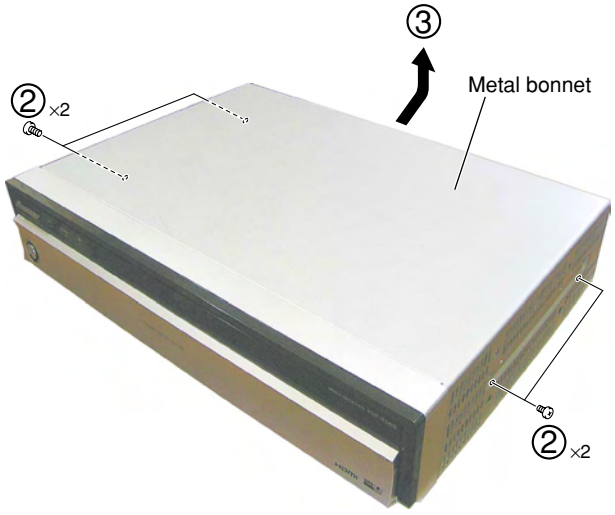
① Remove the three screws.



● **Rear view**

② Remove the four screws.

③ Remove the metal bonnet while pulling it backward.



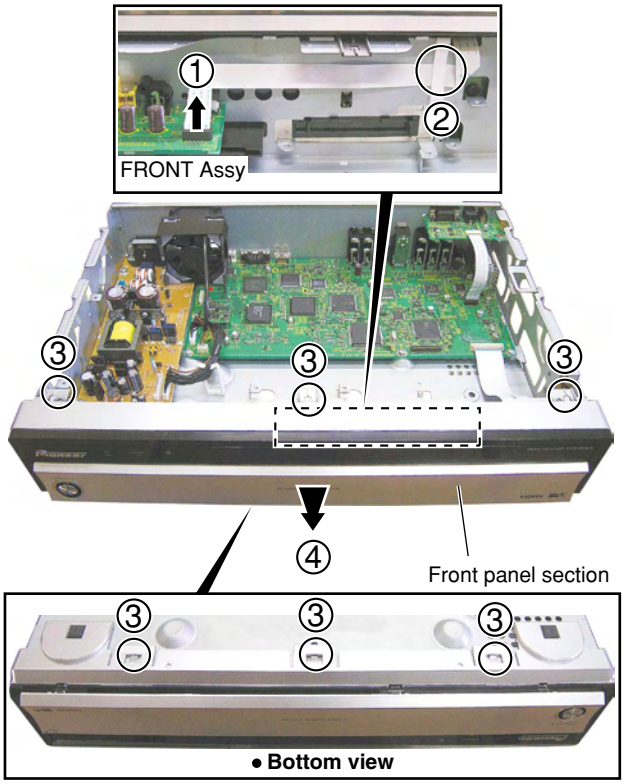
2 Front Panel Section

① Disconnect the flexible cable.

② Remove the flexible cable from the flat clamp.

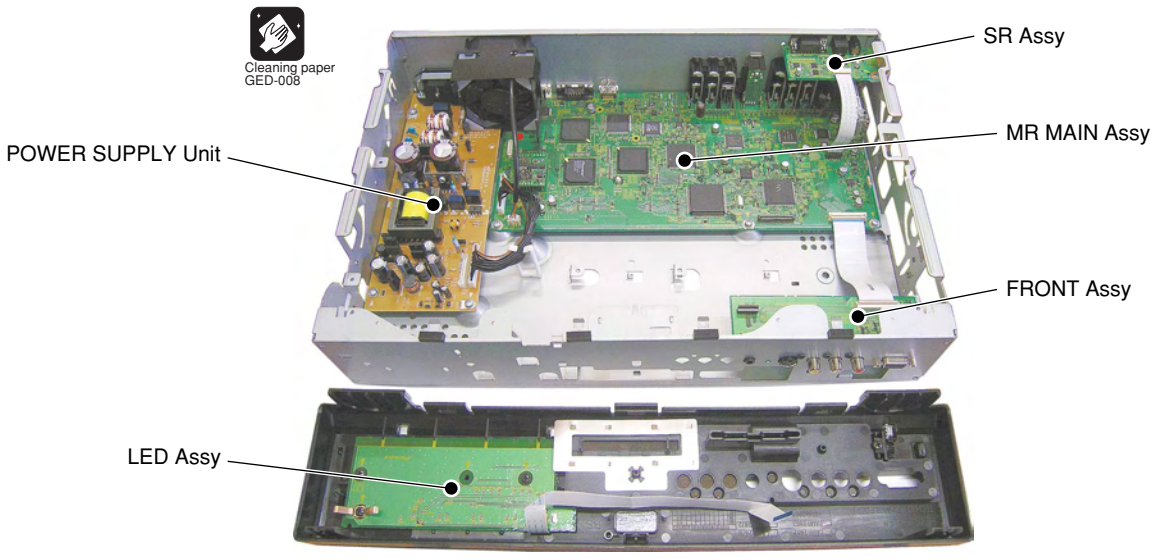
③ Unhook the six hooks.

④ Remove the front panel section.



● **Bottom view**

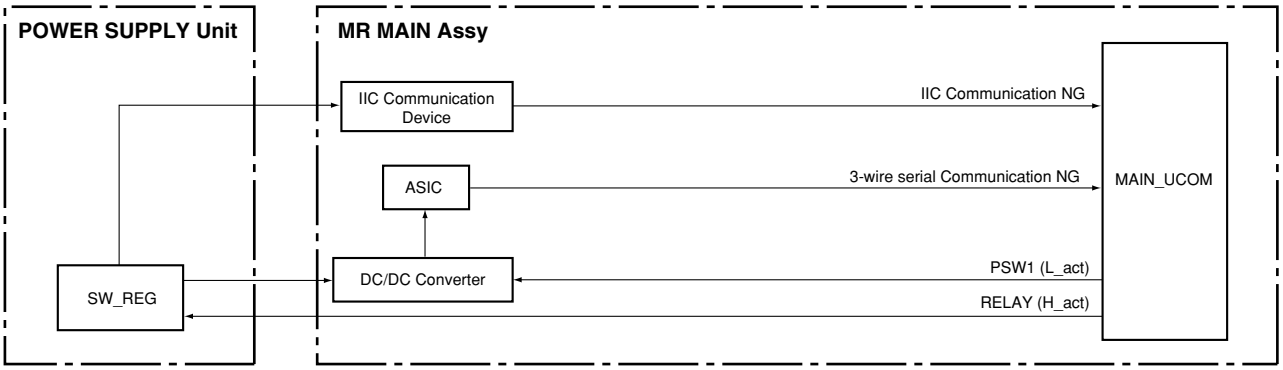
PCB Location



7.2 EXPLANATION
7.2.1 PROCESSING IN ABNORMALITY

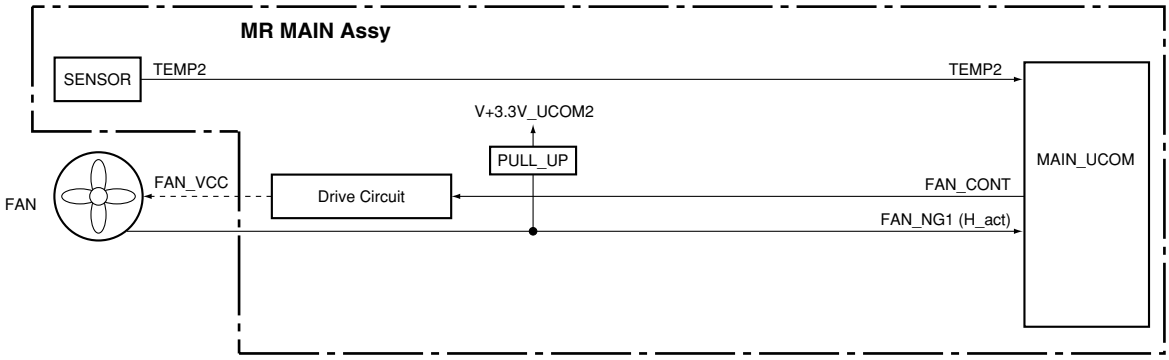
Power supply and DC-DC converter

● **Circuit diagram**



Fan and temperature sensor

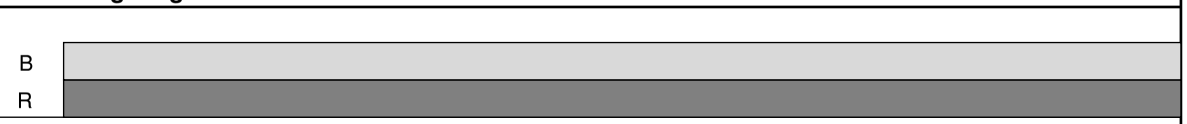
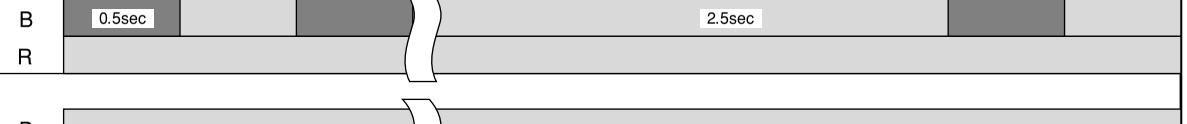
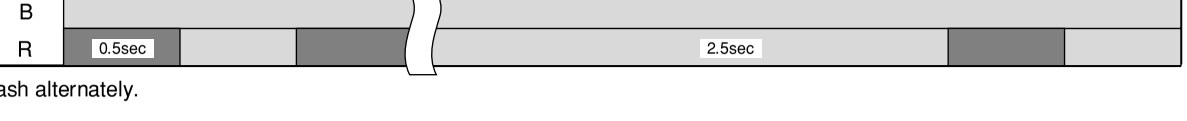
● **Circuit diagram**



● **Specifications for port monitoring**

Port Name	SD/PD Indication	Assigned Pin	Active
FAN_NG 1	FAN	155	Shutdown with H
TEMP2	Abnormally high temperature in the MR	76	Shutdown when the value exceeds the predetermined value

LED-lighting patterns

Status of the Unit		LED-lighting Pattern
Standby, power management	Lit in red	
Power on	Lit in blue	
PDP's power not on	Flashing in red (at 1-sec intervals)	
System cable disconnected *	Flashing alternately in red and blue (at 1-sec intervals)	
Waiting for start of rewriting by the microcomputer		
Waiting for finish of rewriting by the microcomputer		
Shutdown (circuit protection)	Flashing in blue n times (initially at 0.5-sec intervals then 2.5-sec intervals)	
Power-down (circuit protection)	Flashing in red for n times (initially at 0.5-sec intervals then 2.5-sec intervals)	

* In this case, the red and blue areas on the screen of the panel flash alternately.

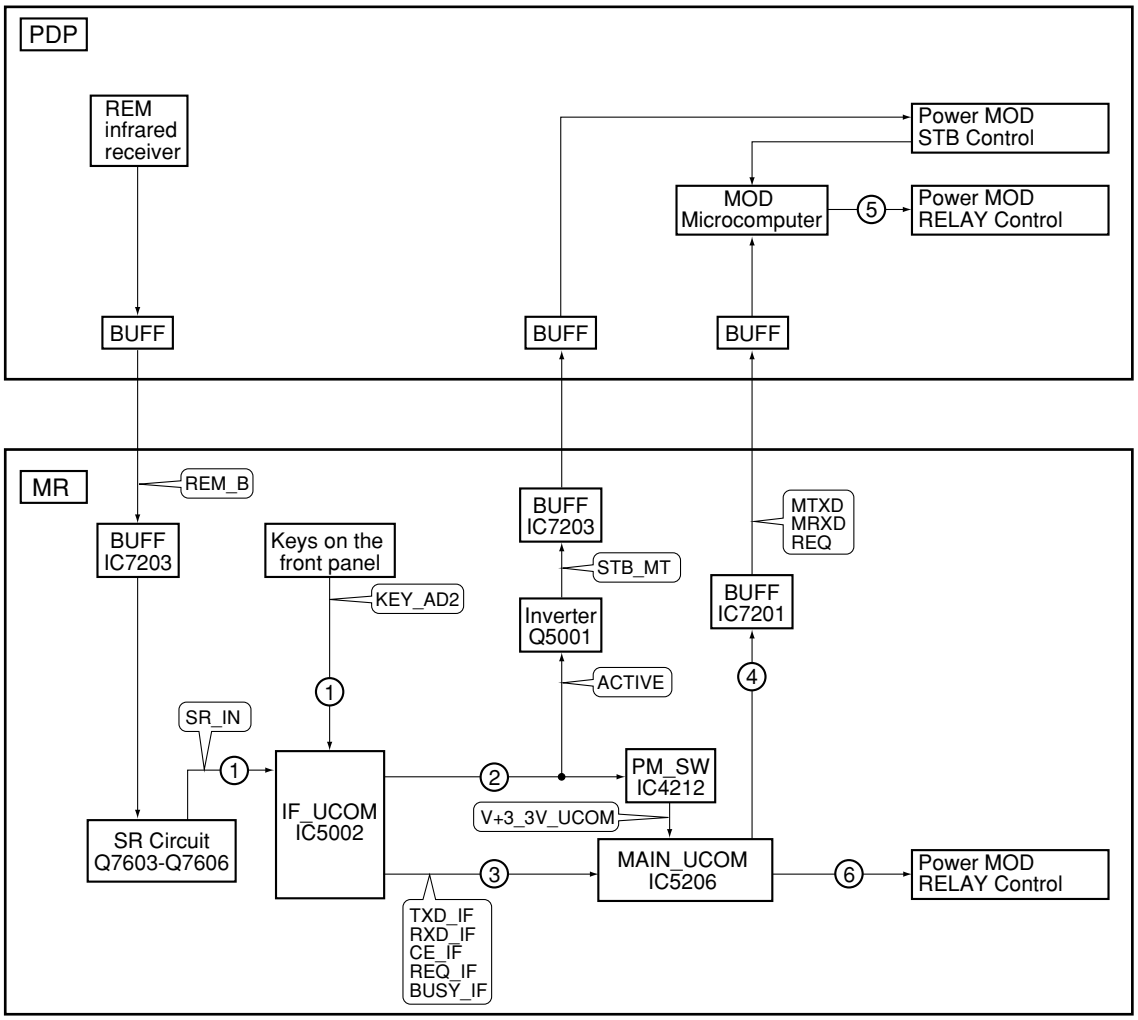
■ Defective points assumed from the number of times of LED flashing

No. of times of LED flashing				Category *1	Site detected as defective	Possible defective points (representative examples)	OSD when detected (warning message)
LEDs on the panel		LEDs on the MR					
Red	Blue	Red	Blue				
	Blue 1	Red		SD	Panel drive IC	*2	None
	Blue 2	Red			Module section IIC	*2	None
	Blue 3	Red			Power decrease of DIGITAL-DC-DC	*2	None
	Blue 4	Red			Panel having abnormally high temperature	*2	Power off. Internal temperature is too high. Check temperature around PDP. [SD04] *6
	Blue 5	Red			Short-circuiting of the speakers	*2	Internal protection circuit turns power off. Is there a short in speaker cable? (SD05)
Red			Blue 6		Module microcomputer	Disconnection of the system cable Defective module microcomputer or its peripheral circuits of the panel (Refer to the service manual of the PDP-436PG or PDP-506PG.) Defective main microcomputer (IC5206) Failure in communication (TXD_MD, RXD_MD, REQ_MD) between the panel's module microcomputer and IC5206 (main microcomputer)	None
Red			Blue 7		3-wire serial connection of the main section	Defective IC5002 or its peripheral circuits Failure in communication (TXD_IF, RXD_IF, CLK_IF, CE_IF, REQ_IF, BUSY_IF) between IC5002 and IC5206 (main microcomputer) Defective IC7001 or its peripheral circuits Failure in communication (TXD_IC3, RXD_IC3, CLK_IC3, CE_IC3, REQ_IC3, BUSY_IC3) between IC7001 and IC5206 (main microcomputer)	None
Red			Blue 8		IIC of the main section	Defective U4401 (FE1) or its peripheral circuits Defective IC4401 (MPX) or its peripheral circuits Defective IC4806 (RGB_SW) or its peripheral circuits Defective ICxxxx (GCR) or its peripheral circuits *4 Defective IC6001 (S-VDEC) or its peripheral circuits Defective IC6404 (HDMI) or its peripheral circuits Defective ICxxxx (PLK-R) or its peripheral circuits Defective IC5405 (TTX-COM, TTX-BSY) or its peripheral circuits Defective IC5202 (MA-EEP) or its peripheral circuits Defective Uxxxx (FE2) or its peripheral circuits *3 Defective IC4804 (AV_SW) or its peripheral circuits Defective ICxxxx (CCD) or its peripheral circuits *3 Defective IC6003 (M-VDEC) or its peripheral circuits Defective IC6201 (ADC) or its peripheral circuits Defective IC7202 (PLK-T) or its peripheral circuits Failure in communication (SCL_AV, SDA_AV, SCL_MA, SDA_MA, SCL_EP, SDA_EP, SCL_TTX, SDA_TTX, SCL-HDCP, SDA-HDCP) between one of the above devices and IC5206 (main microcomputer)	None
Red			Blue 9		Main microcomputer	Defective IC5206 (main microcomputer) Failure in communication (TXD_IF, RXD_IF, CLK_IF, CE_IF, REQ_IF, BUSY_IF) between IC5206 (main microcomputer) and IC5002	None
Red			Blue 10		Fan	Failure in the fan motor, or the fan stopped because of dust attached to the fan	None
Red			Blue 11		MR or unit having abnormally high temperature	The Media Receiver or the unit being used at high temperature	Power off. Internal temperature is too high. Check temperature around media receiver. [SD011]
Red			Blue 12		Digital tuner	Defective DTV tuner *5	None
Red			Blue 13		ASIC power supply (DC-DC)	Defective U4201 (DD_CON) or short-circuiting elsewhere *6	None
Red 2		Red		PD	POWER	*2	None
Red 3		Red			SCAN	*2	None
Red 4		Red			SCN-5V	*2	None
Red 5		Red			Y-DRV	*2	None
Red 6		Red			Y-DCDC	*2	None
Red 7		Red			Y-SUS	*2	None
Red 8		Red			ADRS	*2	None
Red 9		Red			X-DRV	*2	None
Red 10		Red			X-DCDC	*2	None
Red 11		Red			X-SUS	*2	None
Red 12		Red			D-DCDC	*2	None
Red 13		Red			IC4	*2	None
Red 15		Red			UNKNOWN	*2	None

*1: Shutdown (SD) is a protective operation controlled by the microcomputer, and you can turn on the unit again using the remote control unit. Power-down (PD) is a protective operation activated by the circuitry and can be reset after AC power is off for about 1 minute.

*2: Refer to the service manual of the PDP-436PG or PDP-506PG.
*3: Only for US model.
*4: Only for J model.
*5: Only for US and J models.
*6: Only for one-body model.

7.2.2 POWER ON SEQUENCE



REM_B Descriptions in a call-out are signal names for reference.
For wiring numbers on the PDP side, refer to the service manual for the PDP.

① : The signal from the remote control unit (or a key signal) is input to the IF microcomputer.
② : The IF microcomputer supplies the power to the main microcomputer and MOD microcomputer.
③ : The IF microcomputer transmits operation data from the remote control unit (or keys) to the main microcomputer.
④ : The main microcomputer issues a startup command to the MOD microcomputer.
⑤ : The MOD microcomputer controls the relay of the PDP Power MOD and starts the power-on sequence of the PDP.
⑥ : The main microcomputer controls the relay of the MR Power MOD and starts the power-on sequence of the MR.

7.3 PARTS

7.3.1 IC

• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

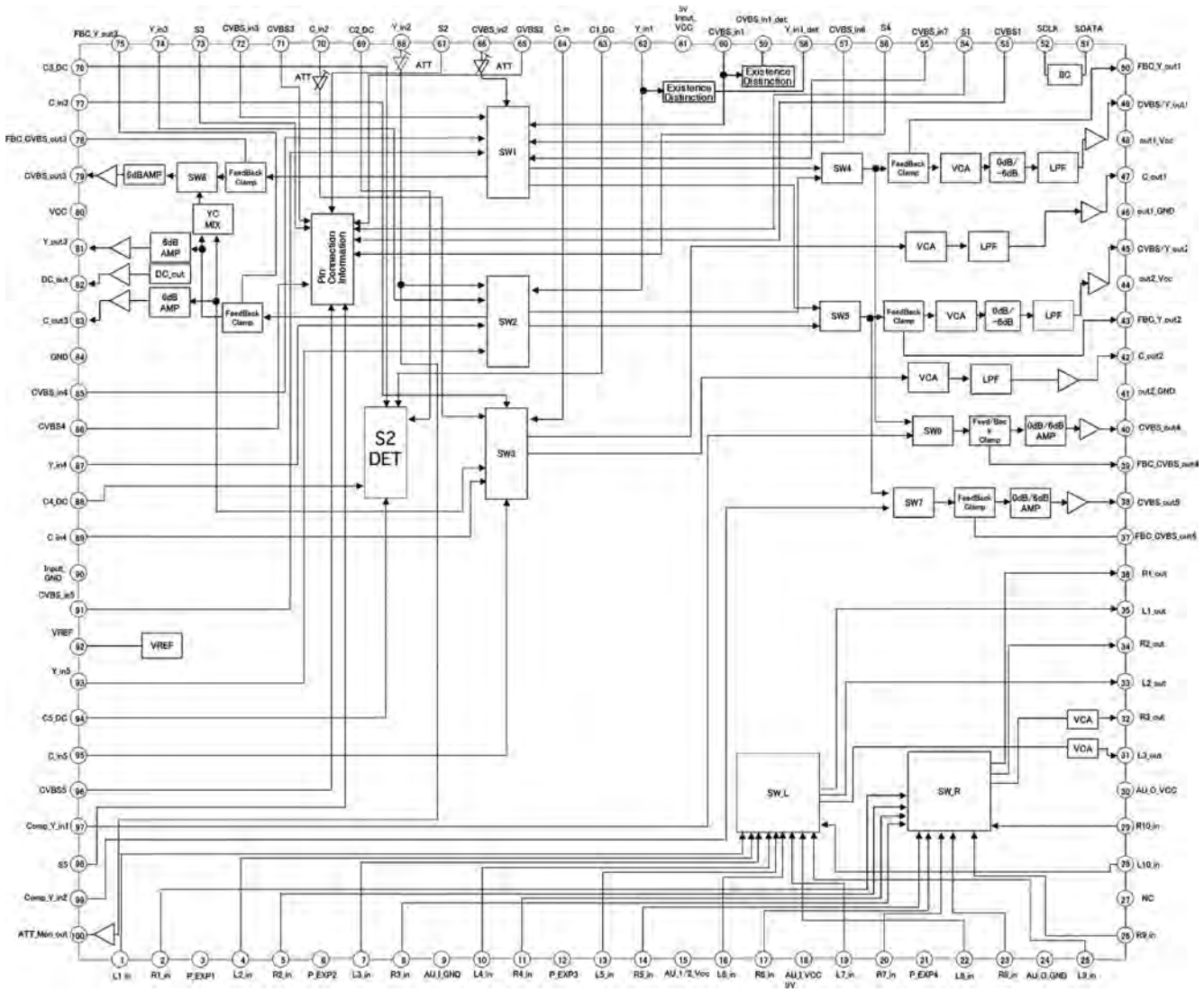
● **List of IC**

R2S11002AFT, R2S11001FT, K4S641632H-TC75, S29AL016D70TFI010, UPD64015GM-UEU, TVP5150AM1PBS, K4S161622H-TC60, AD9985KSTZ-110, SII9021CTU, K4S643232H-TC60, MBM29DL162TE70TN, SII170BCLG64, AXF1150, AXY1117

■ R2S11002AFT (MR MAIN ASSY: IC4804)

• AV SW

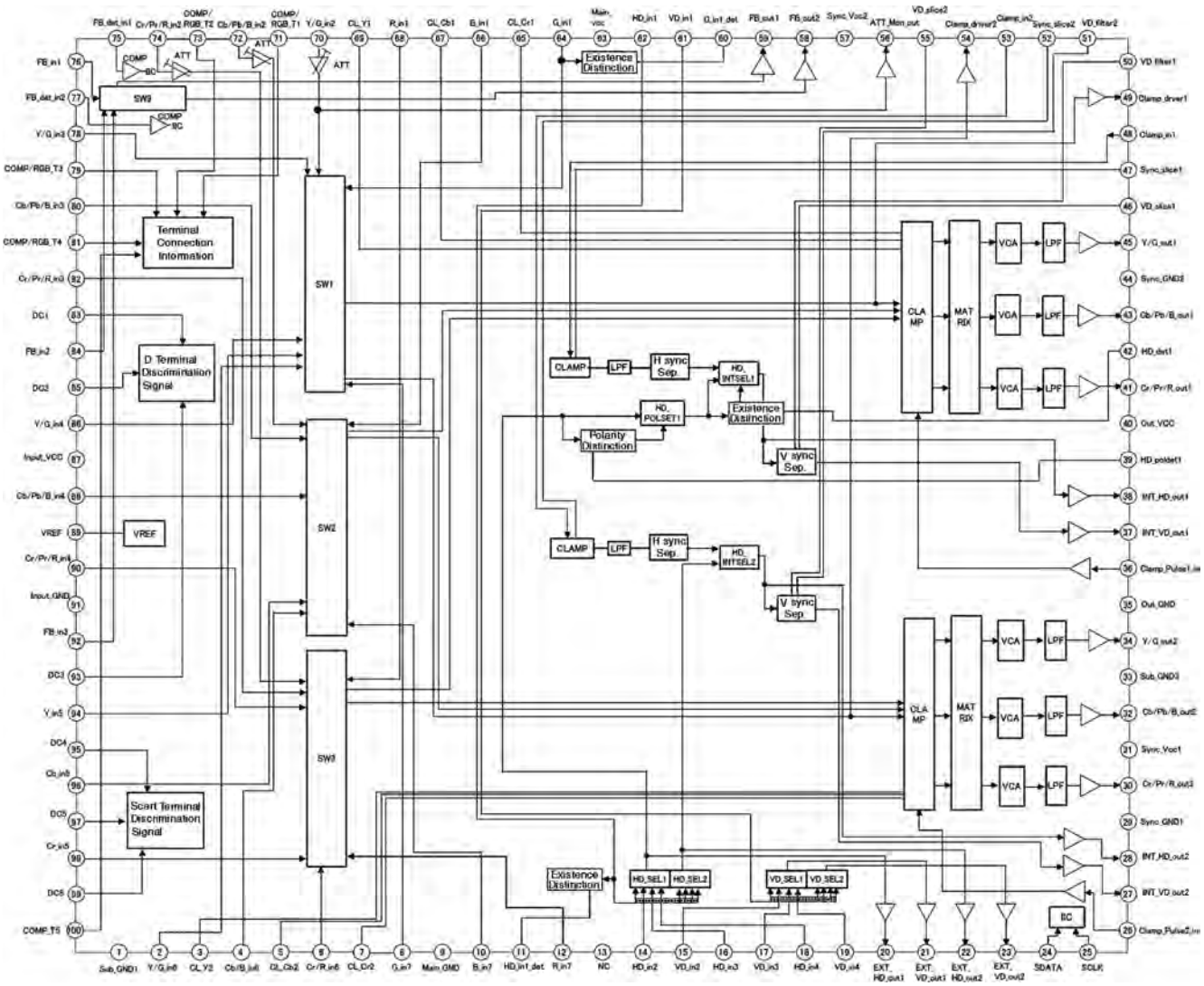
● **Block Diagram**



■ R2S11001FT (MR MAIN ASSY: IC4806)

• Component SW IC

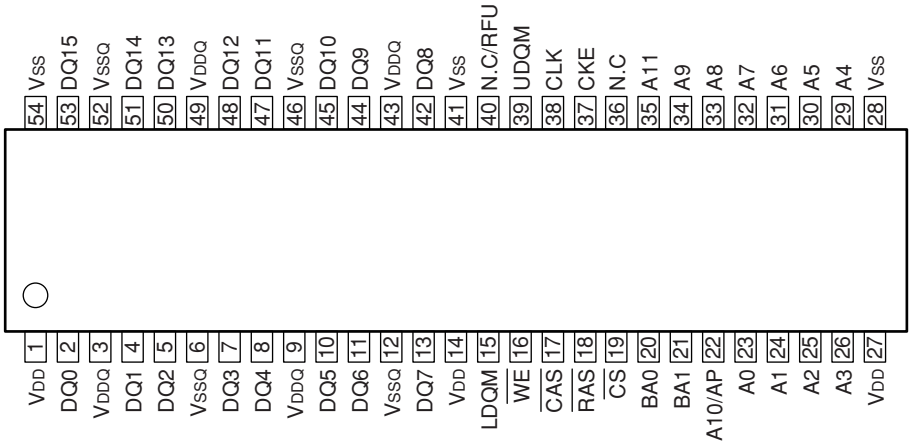
● Block Diagram



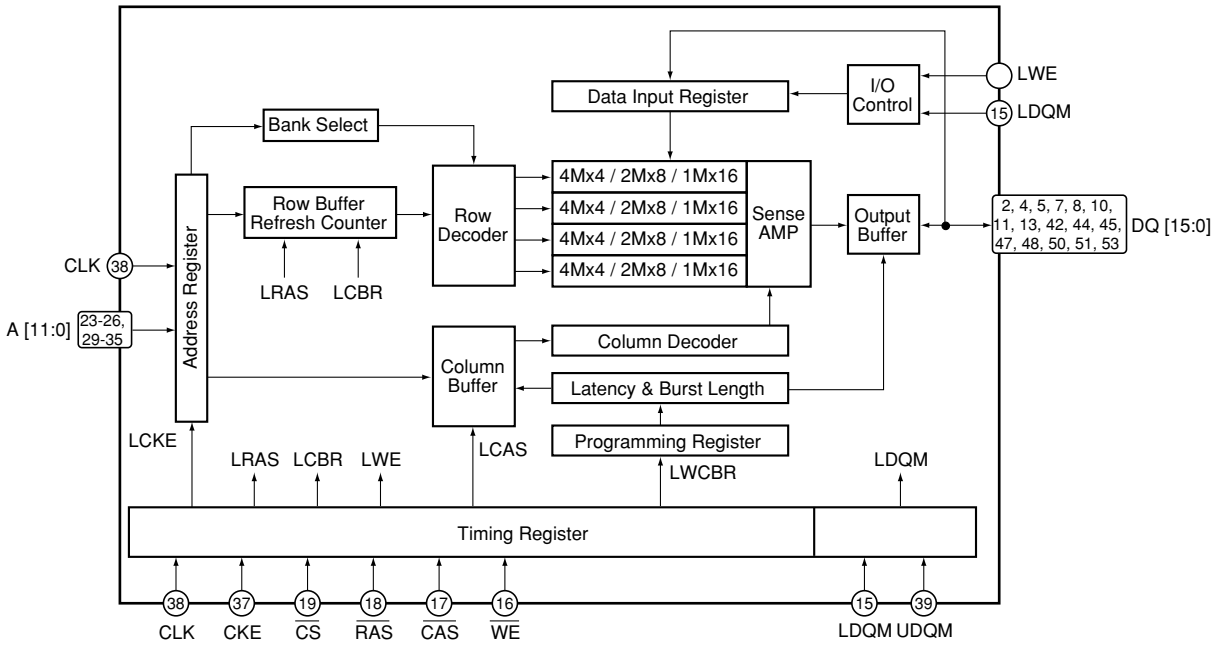
■ K4S641632H-TC75 (MR MAIN ASSY : IC5403)

• 64M SDRAM

● Pin Arrangement (Top view)



● Block Diagram



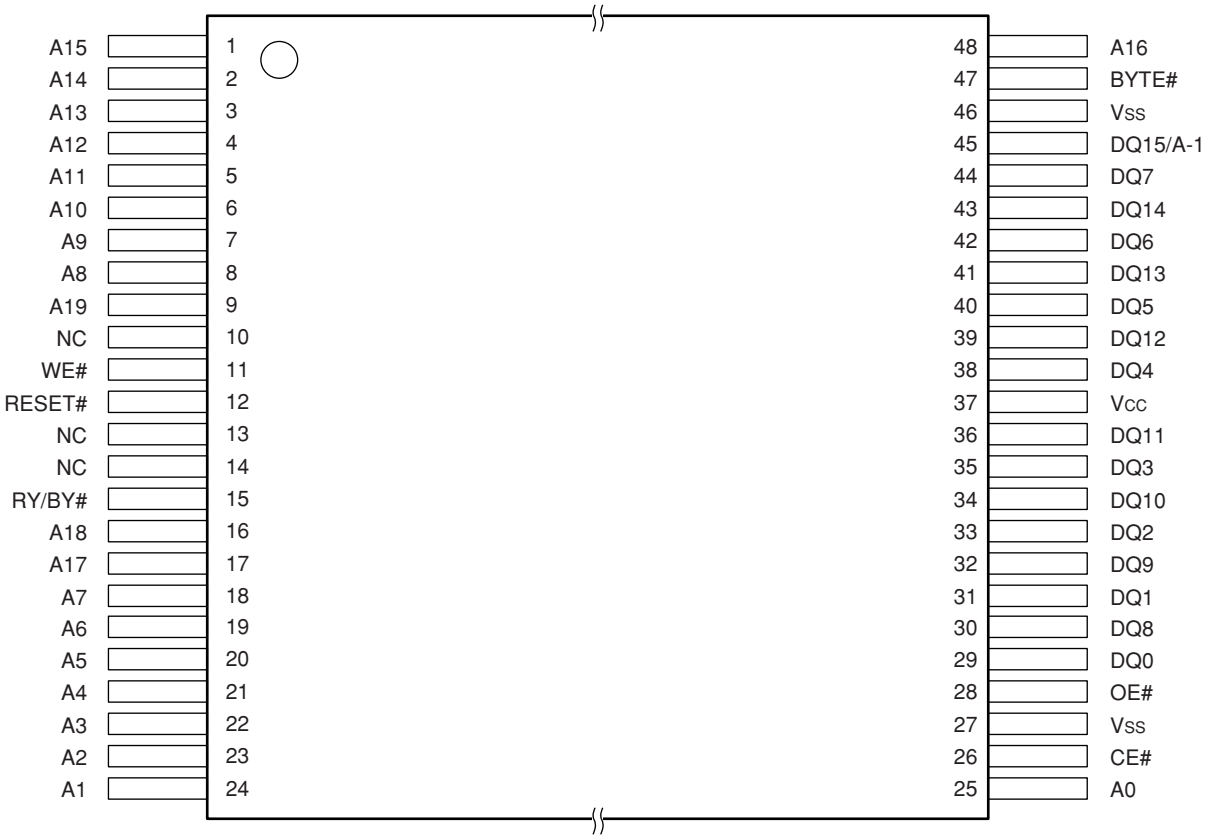
● Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	V_{DD}	–	Power supply	28	V_{SS}	–	Ground
2	DQ0	I/O	Data input/output	29	A4	I	Address input
3	V_{DDQ}	–	Power supply for data output	30	A5	I	Address input
4	DQ1	I/O	Data input/output	31	A6	I	Address input
5	DQ2	I/O	Data input/output	32	A7	I	Address input
6	V_{SSQ}	–	Ground for data output	33	A8	I	Address input
7	DQ3	I/O	Data input/output	34	A9	I	Address input
8	DQ4	I/O	Data input/output	35	A11	I	Address input
9	V_{DDQ}	–	Power supply for data output	36	N.C	–	No connection
10	DQ5	I/O	Data input/output	37	CKE	I	Clock enable input
11	DQ6	I/O	Data input/output	38	CLK	I	System clock input
12	V_{SSQ}	–	Ground for data output	39	UDQM	I	Data input/output mask
13	DQ7	I/O	Data input/output	40	N.C/RFU	–	No connection (Reserved for future use)
14	V_{DD}	–	Power supply	41	V_{SS}	–	Ground
15	LDQM	I	Data input/output mask	42	DQ8	I/O	Data input/output
16	$\overline{WE}$	I	Write enable input	43	V_{DDQ}	–	Power supply for data output
17	$\overline{CAS}$	I	Column address strobe input	44	DQ9	I/O	Data input/output
18	$\overline{RAS}$	I	Row address strobe input	45	DQ10	I/O	Data input/output
19	$\overline{CS}$	I	Chip select input	46	V_{SSQ}	–	Ground for data output
20	BA0	I	Bank select address input	47	DQ11	I/O	Data input/output
21	BA1	I	Bank select address input	48	DQ12	I/O	Data input/output
22	A10/AP	I	Address input	49	V_{DDQ}	–	Power supply for data output
23	A0	I	Address input	50	DQ13	I/O	Data input/output
24	A1	I	Address input	51	DQ14	I/O	Data input/output
25	A2	I	Address input	52	V_{SSQ}	–	Ground for data output
26	A3	I	Address input	53	DQ15	I/O	Data input/output
27	V_{DD}	–	Power supply	54	V_{SS}	–	Ground

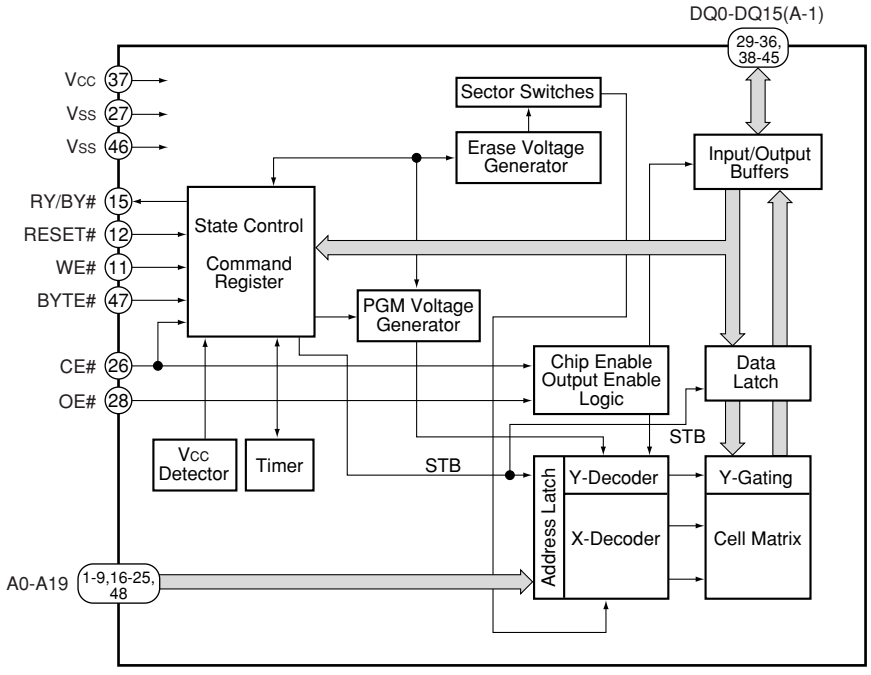
■ S29AL016D70TFI010 (MR MAIN ASSY : IC5404)

• 16M Flash Memory

● Pin Arrangement (Top view)



● Block Diagram



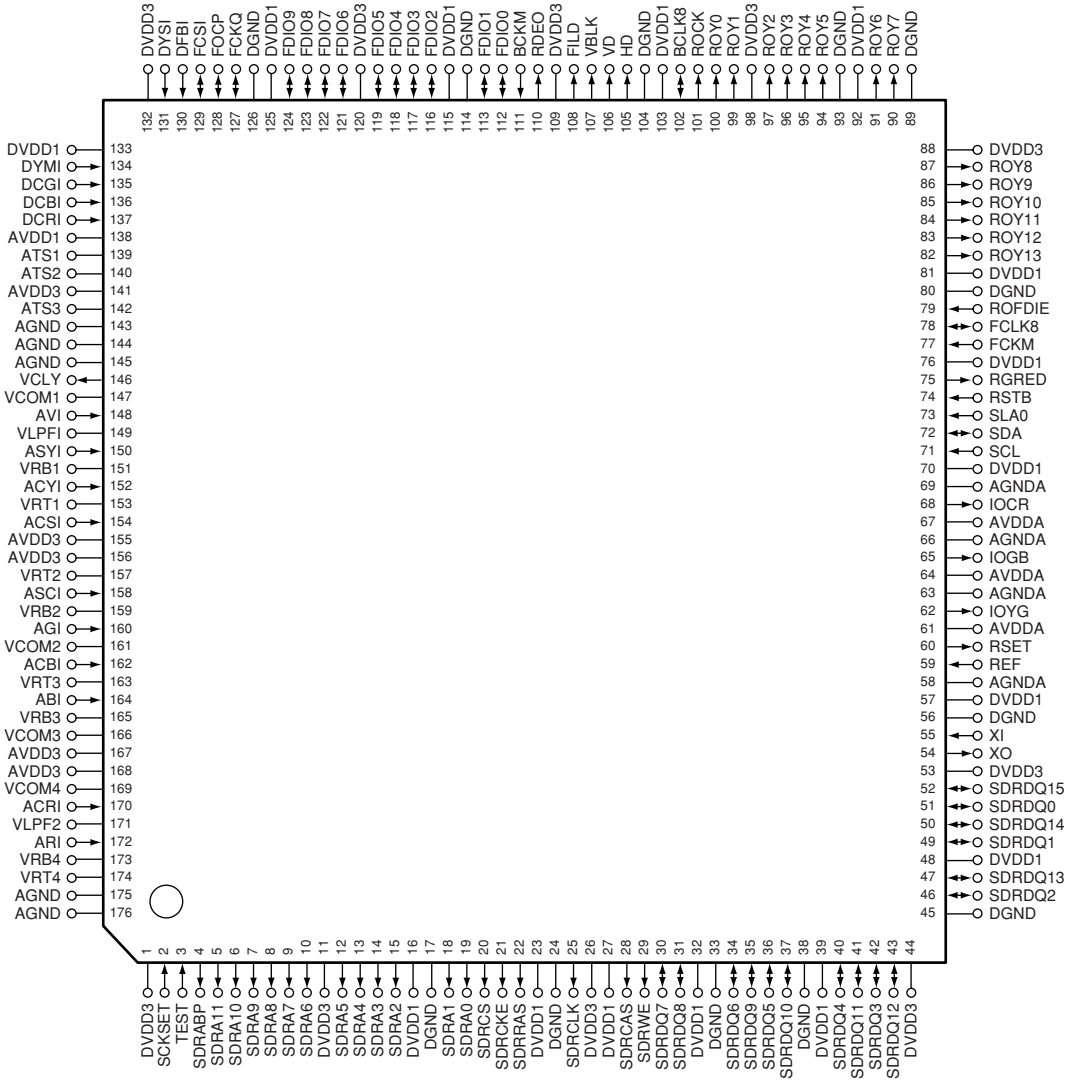
● Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	A15	I	Address input	25	A0	I	Address input
2	A14	I	Address input	26	CE#	I	Chip enable
3	A13	I	Address input	27	Vss	–	Device ground
4	A12	I	Address input	28	OE#	I	Output enable
5	A11	I	Address input	29	DQ0	I/O	Data input/output
6	A10	I	Address input	30	DQ8	I/O	Data input/output
7	A9	I	Address input	31	DQ1	I/O	Data input/output
8	A8	I	Address input	32	DQ9	I/O	Data input/output
9	A19	I	Address input	33	DQ2	I/O	Data input/output
10	NC	–	No connection	34	DQ10	I/O	Data input/output
11	WE#	I	Write enable	35	DQ3	I/O	Data input/output
12	RESET#	I	Hardware reset	36	DQ11	I/O	Data input/output
13	NC	–	No connection	37	Vcc	–	3V single power supply
14	NC	–	No connection	38	DQ4	I/O	Data input/output
15	RY/BY#	O	Ready/Busy output	39	DQ12	I/O	Data input/output
16	A18	I	Address input	40	DQ5	I/O	Data input/output
17	A17	I	Address input	41	DQ13	I/O	Data input/output
18	A7	I	Address input	42	DQ6	I/O	Data input/output
19	A6	I	Address input	43	DQ14	I/O	Data input/output
20	A5	I	Address input	44	DQ7	I/O	Data input/output
21	A4	I	Address input	45	DQ15/A-1	I/O	DQ15: Data input/output, word mode A-1: LSB address input, byte mode
22	A3	I	Address input	46	Vss	–	Device ground
23	A2	I	Address input	47	BYTE#	I	Selects 8-bit or 16-bit mode
24	A1	I	Address input	48	A16	I	Address input

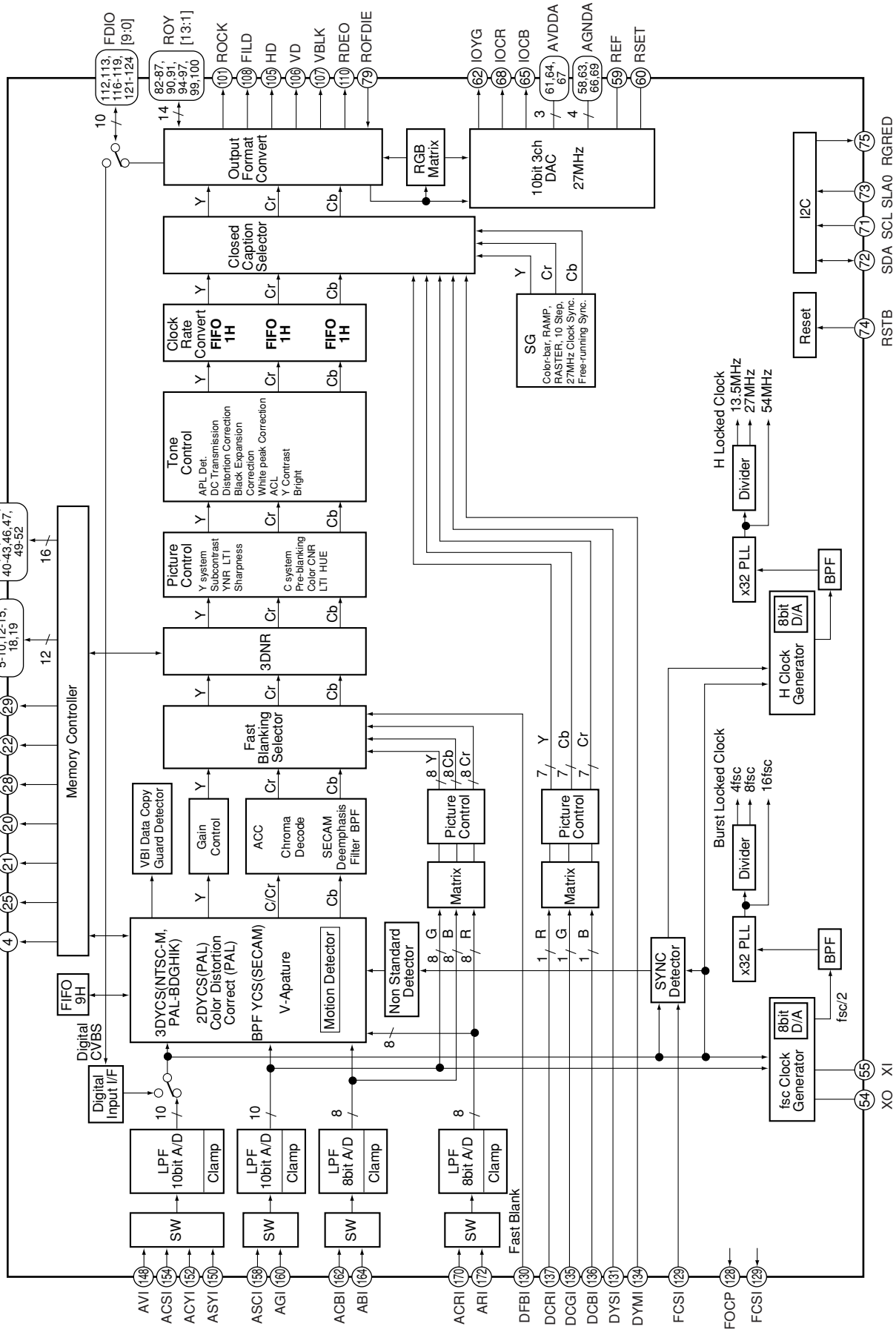
■ UPD64015GM-UEU (MR MAIN ASSY : IC6003)

• Video Decoder (for main screen)

● Pin Arrangement (Top view)



● Block Diagram



● **Pin Function**

No.	Pin Name	I/O	Pin Function
1	DVDD3	–	Digital power supply (3.3V)
2	SCKSET	I	Test mode selection (L: Normal, H: Test mode)
3	TEST	I	Test setting (L: Normal, H: Test mode)
4	SDRABP	O	All bank precharge output for external memory (Active High)
5	SDRA11	O	Address output for external memory
6	SDRA10	O	Address output for external memory
7	SDRA9	O	Address output for external memory
8	SDRA8	O	Address output for external memory
9	SDRA7	O	Address output for external memory
10	SDRA6	O	Address output for external memory
11	DVDD3	–	Digital power supply (3.3V)
12	SDRA5	O	Address output for external memory
13	SDRA4	O	Address output for external memory
14	SDRA3	O	Address output for external memory
15	SDRA2	O	Address output for external memory
16	DVDD1	–	Digital power supply (1.5V)
17	DGND	–	Digital ground
18	SDRA1	O	Address output for external memory
19	SDRA0	O	Address output for external memory
20	SDRCS	O	Chip select output for external memory (Active Low)
21	SDRCKE	O	Clock enable output for external memory (Active High)
22	SDRRAS	O	Row address strobe output for external memory (Active Low)
23	DVDD1	–	Digital power supply (1.5V)
24	DGND	–	Digital ground
25	SDRCLK	O	Clock output for external memory
26	DVDD3	–	Digital power supply (3.3V)
27	DVDD1	–	Digital power supply (1.5V)
28	SDRCAS	O	Column address strobe output for external memory (Active Low)
29	SDRWE	O	Write enable output for external memory (Active Low)
30	SDRDQ7	I/O	Data input/output for external memory
31	SDRDQ8	I/O	Data input/output for external memory
32	DVDD1	–	Digital power supply (1.5V)
33	DGND	–	Digital ground
34	SDRDQ6	I/O	Data input/output for external memory
35	SDRDQ9	I/O	Data input/output for external memory
36	SDRDQ5	I/O	Data input/output for external memory
37	SDRDQ10	I/O	Data input/output for external memory
38	DGND	–	Digital ground
39	DVDD1	–	Digital power supply (1.5V)
40	SDRDQ4	I/O	Data input/output for external memory
41	SDRDQ11	I/O	Data input/output for external memory
42	SDRDQ3	I/O	Data input/output for external memory
43	SDRDQ12	I/O	Data input/output for external memory
44	DVDD3	–	Digital power supply (3.3V)
45	DGND	–	Digital ground
46	SDRDQ2	I/O	Data input/output for external memory
47	SDRDQ13	I/O	Data input/output for external memory
48	DVDD1	–	Digital power supply (1.5V)
49	SDRDQ1	I/O	Data input/output for external memory
50	SDRDQ14	I/O	Data input/output for external memory

No.	Pin Name	I/O	Pin Function
51	SDRDQ0	I/O	Data input/output for external memory
52	SDRDQ15	I/O	Data input/output for external memory
53	DVDD3	–	Digital power supply (3.3V)
54	XO	O	Reference clock output Connect a 24.576MHz crystal.
55	XI	I	Reference clock input Connect a 24.576MHz crystal.
56	DGND	–	Digital ground
57	DVDD1	–	Digital power supply (1.5V)
58	AGNDA	–	Analog ground for DAC
59	REF	I	External reference input
60	RSET	O	Connect a 620 ohm resistor for external adjustment to AGND
61	AVDDA	–	Analog power supply for DAC (3.3V)
62	IOYG	O	Color-difference component Y / RGB component G output signal
63	AGNDA	–	Analog ground for DAC
64	AVDDA	–	Analog power supply for DAC (3.3V)
65	IOGB	O	Color-difference component Cb / RGB component B output signal
66	AGNDA	–	Analog ground for DAC
67	AVDDA	–	Analog power supply for DAC (3.3V)
68	IOCR	O	Color-difference component Cr / RGB component R output signal
69	AGNDA	–	Analog ground for DAC
70	DVDD1	–	Digital power supply (1.5V)
71	SCL	I	I^2C bus clock input Connect to SCL line of the system.
72	SDA	I/O	I^2C bus data input/output Connect to SDA line of the system.
73	SLA0	I	I^2C bus slave address select input (L: B8h/B9h, H: BAh/BBh)
74	RSTB	I	System reset input (Active Low)
75	RGRED	O	I^2C register read flag output (Active Low)
76	DVDD1	–	Digital power supply (1.5V)
77	FCKM	I	FCLK8 test mode selection (L: Normal, H: Test mode)
78	FCLK8	I/O	Line-lock clock monitor input/output
79	ROFDIE	I	Output enable of the video input/output terminal L: Output terminal Hi-Z, H: Output enable
80	DGND	–	Digital ground
81	DVDD1	–	Digital power supply (1.5V)
82	ROY13	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
83	ROY12	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
84	ROY11	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
85	ROY10	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
86	ROY9	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
87	ROY8	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
88	DVDD3	–	Digital power supply (3.3V)
89	DGND	–	Digital ground
90	ROY7	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
91	ROY6	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
92	DVDD1	–	Digital power supply (1.5V)
93	DGND	–	Digital ground
94	ROY5	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
95	ROY4	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
96	ROY3	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
97	ROY2	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
98	DVDD3	–	Digital power supply (3.3V)
99	ROY1	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
100	ROY0	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output

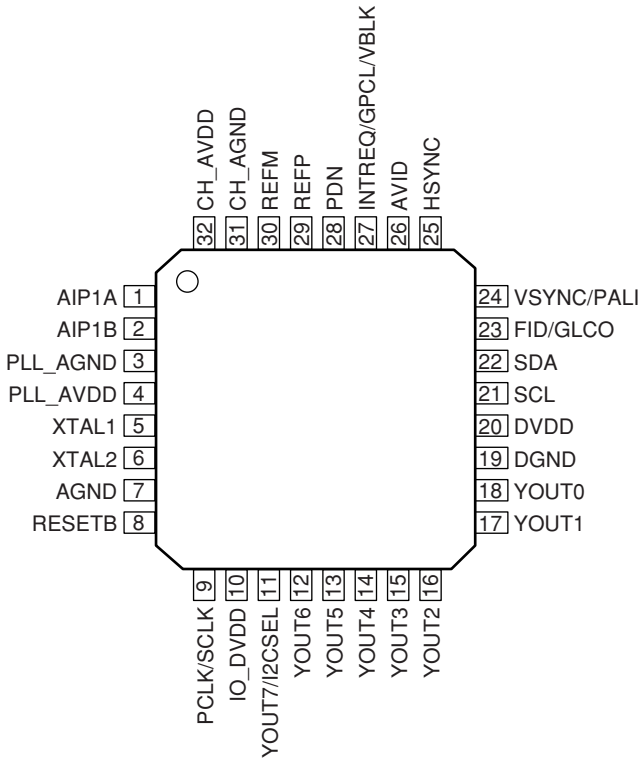
No.	Pin Name	I/O	Pin Function
101	ROCK	O	Clock for digital ITU-R BT. 656/component output
102	BCLK8	I/O	Line-lock clock monitor input/output
103	DVDD1	–	Digital power supply (1.5V)
104	DGND	–	Digital ground
105	HD	O	Horizontal sync. signal output
106	VD	O	Vertical sync. signal output
107	VBLK	O	V blanking output
108	FILD	O	Field output
109	DVDD3	–	Digital power supply (3.3V)
110	RDEO	O	Effective pixel area output
111	BCKM	I	Test mode selection of BCLK8 pin (L: Normal, H: Test mode)
112	FDIO0	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
113	FDIO1	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
114	DGND	–	Digital ground
115	DVDD1	–	Digital power supply (1.5V)
116	FDIO2	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
117	FDIO3	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
118	FDIO4	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
119	FDIO5	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
120	DVDD3	–	Digital power supply (3.3V)
121	FDIO6	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
122	FDIO7	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
123	FDIO8	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
124	FDIO9	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
125	DVDD1	–	Digital power supply (1.5V)
126	DGND	–	Digital ground
127	FCKQ	I/O	Sampling clock output for digital connection
128	FOCP	I/O	Clamp pulse output for digital connection / Timing output for digital RGB input (VD)
129	FCSI	I/O	Sync sep. signal input / Timing output for RGB input (HD)
130	DFBI	I	Fast blanking signal input for analog RGB input
131	DYSI	I	YS signal input for digital RGB input
132	DVDD3	–	Digital power supply (3.3V)
133	DVDD1	–	Digital power supply (1.5V)
134	DYMI	I	YM signal input for digital RGB input
135	DCGI	I	Digital RGB/G signal input
136	DCBI	I	Digital RGB/B signal input
137	DCRI	I	Digital RGB/R signal input
138	AVDD1	–	Analog power supply (1.5V)
139	ATS1	–	Analog test input Normally, connect to GND.
140	ATS2	–	Analog test input Normally, connect to GND.
141	AVDD3	–	Analog power supply (3.3V)
142	ATS3	–	Analog test input Normally, connect to GND.
143	AGND	–	Analog ground
144	AGND	–	Analog ground
145	AGND	–	Analog ground
146	VCLY	O	ADC1 clamp voltage
147	VCOM1	–	ADC1 common-mode reference voltage
148	AVI	I	ADC1 composite/Y signal input
149	VLPFI	–	Analog test output Connect to GND via 0.1μF capacitor.
150	ASYI	I	ADC1 composite/Y signal input

No.	Pin Name	I/O	Pin Function
151	VRB1	–	ADC1 bottom reference voltage
152	ACYI	I	ADC1 composite/Y signal input
153	VRT1	–	ADC1 top reference voltage
154	ACSI	I	ADC1 composite/Y signal input
155	AVDD3	–	Analog power supply for ADC (3.3V)
156	AVDD3	–	Analog power supply for ADC (3.3V)
157	VRT2	–	ADC2 top reference voltage
158	ASCI	I	ADC2 separate C signal input
159	VRB2	–	ADC2 bottom reference voltage
160	AGI	I	ADC2 RGB component G signal input
161	VCOM2	–	ADC2 common-mode reference voltage
162	ACBI	I	ADC3 color-difference component Cb signal input
163	VRT3	–	ADC3 top reference voltage
164	ABI	I	ADC3 RGB component B signal input
165	VRB3	–	ADC3 bottom reference voltage
166	VCOM3	–	ADC3 common-mode reference voltage
167	AVDD3	–	Analog power supply for ADC (3.3V)
168	AVDD3	–	Analog power supply for ADC (3.3V)
169	VCOM4	–	ADC4 common-mode reference voltage
170	ACRI	I	ADC4 color-difference component Cr signal input
171	VLPF2	–	Analog test output
172	ARI	I	ADC3 RGB component R signal input
173	VRB4	–	ADC4 bottom reference voltage
174	VRT4	–	ADC4 top reference voltage
175	AGND	–	Analog ground
176	AGND	–	Analog ground

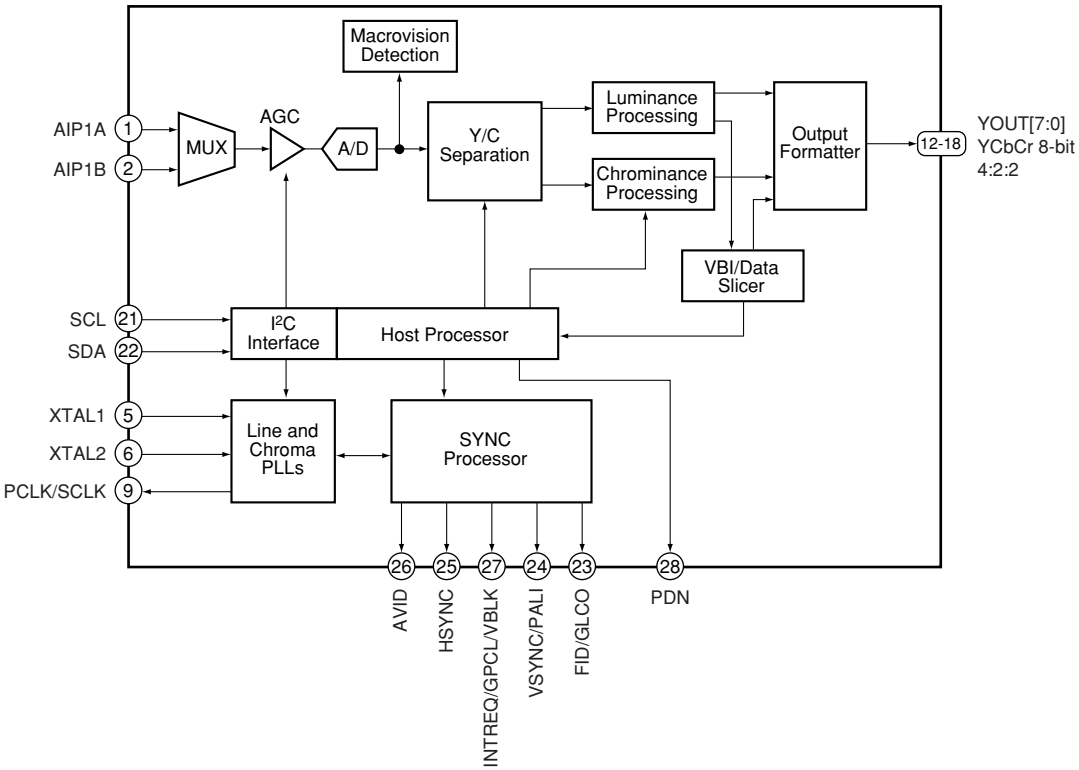
■ TVP5150AM1PBS (MR MAIN ASSY : IC6001)

• Video Decoder (for Subscreen)

● Pin Arrangement (Top view)



● Block Diagram



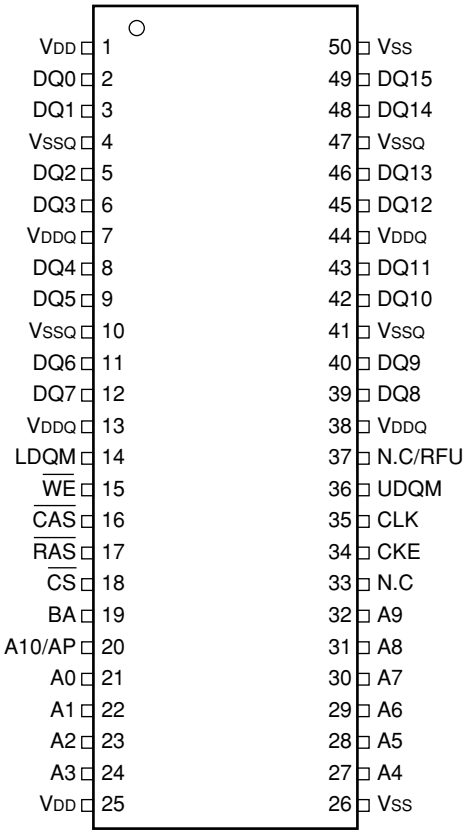
● **Pin Function**

No.	Pin Name	I/O	Pin Function
1	AIP1A	I	Analog input
2	AIP1B	I	Analog input
3	PLL_AGND	I	PLL ground Connect to analog ground.
4	PLL_AVDD	I	PLL power supply (1.8V)
5	XTAL1	I	External clock reference
6	XTAL2	O	External clock reference
7	AGND	I	Substrate Connect to analog ground.
8	RESETB	I	Active-low reset
9	PCLK/SCLK	O	System clock at either 1x or 2x the frequency of the pixel clock
10	IO_DVDD	I	Digital power supply (3.3V)
11	YOUT(7)/I2CSEL	I/O	I2CSEL: Determines address for I²C (sampled during reset) YOUT7: MSB of output decoded ITU-R BT.656 output/YCbCr 4:2:2 output
12	YOUT6	I/O	Output decoded ITU-R BT.656 output/YCbCr 4:2:2 output with discrete sync
13	YOUT5	I/O	Output decoded ITU-R BT.656 output/YCbCr 4:2:2 output with discrete sync
14	YOUT4	I/O	Output decoded ITU-R BT.656 output/YCbCr 4:2:2 output with discrete sync
15	YOUT3	I/O	Output decoded ITU-R BT.656 output/YCbCr 4:2:2 output with discrete sync
16	YOUT2	I/O	Output decoded ITU-R BT.656 output/YCbCr 4:2:2 output with discrete sync
17	YOUT1	I/O	Output decoded ITU-R BT.656 output/YCbCr 4:2:2 output with discrete sync
18	YOUT0	I/O	Output decoded ITU-R BT.656 output/YCbCr 4:2:2 output with discrete sync
19	DGND	I	Digital ground
20	DVDD	I	Digital power supply (1.8V)
21	SCL	I/O	I²C serial clock (open drain)
22	SDA	I/O	I²C serial data (open drain)
23	FID/GLCO	O	FID: Odd/even field indicator or vertical lock indicator GLCO: This serial output carries color PLL information
24	VSYNC/PALI	O	VSYNC: Vertical synchronization signal PALI: PAL line indicator or horizontal lock indicator
25	HSYNC	O	Horizontal synchronization signal
26	AVID	O	Active video indicator
27	INTREQ/GPCL /VBLK	I/O	INTREQ: Interrupt request output GPCL: General-purpose control logic
28	PDN	I	Power-down terminal (active low)
29	REFP	I	A/D reference supply
30	REFM	I	A/D reference ground
31	CH_AGND	I	Analog ground
32	CH_AVDD	I	Analog power supply (1.8V)

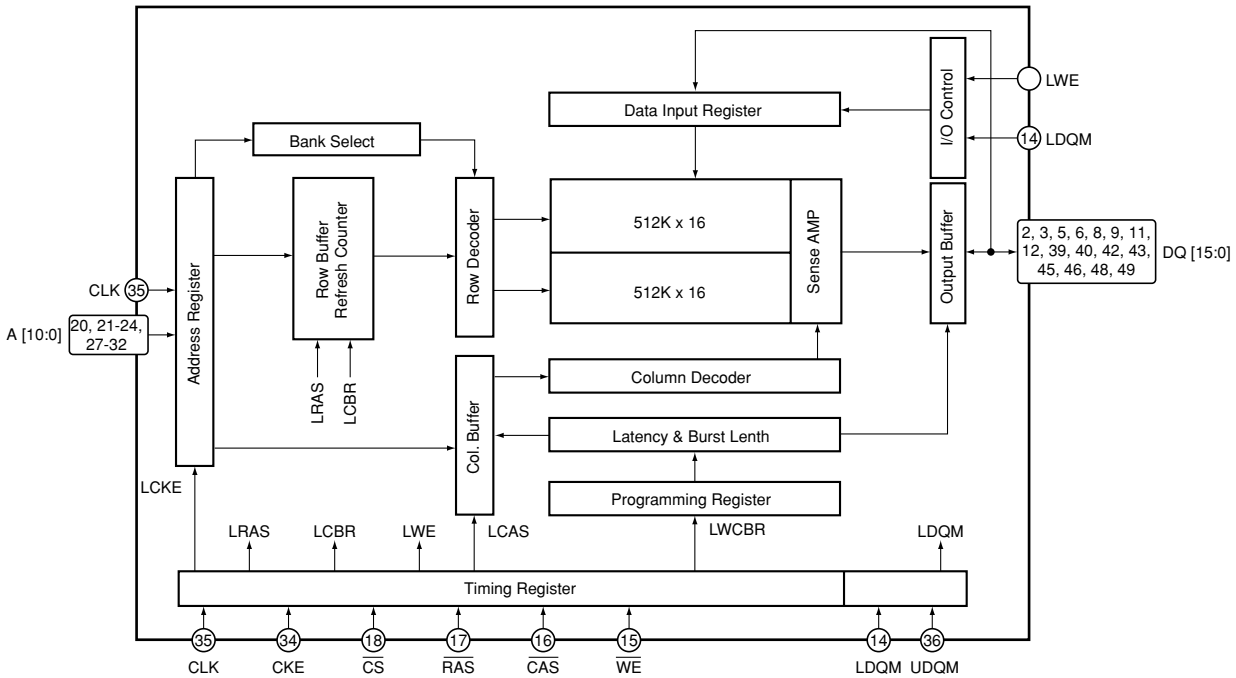
K4S161622H-TC60 (MR MAIN ASSY : IC6002)

• 16M SDRAM (for Main VDEC)

● Pin Arrangement (Top view)



● Block Diagram



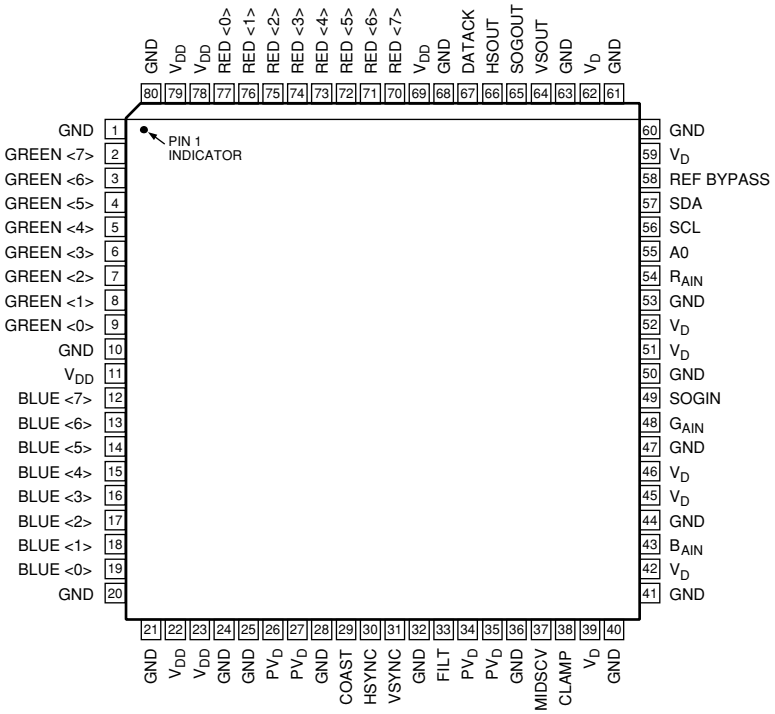
● Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	V_{DD}	–	Power supply	26	V_{SS}	–	Ground
2	DQ0	I/O	Data input / output	27	A4	I	Address input
3	DQ1	I/O	Data input / output	28	A5	I	Address input
4	V_{SSQ}	–	Ground for data output	29	A6	I	Address input
5	DQ2	I/O	Data input / output	30	A7	I	Address input
6	DQ3	I/O	Data input / output	31	A8	I	Address input
7	V_{DDQ}	–	Power supply for data output	32	A9	I	Address input
8	DQ4	I/O	Data input / output	33	N.C	–	No connection
9	DQ5	I/O	Data input / output	34	CKE	I	Clock enable input
10	V_{SSQ}	–	Ground for data output	35	CLK	I	System clock input
11	DQ6	I/O	Data input / output	36	UDQM	I	Data input / output mask input
12	DQ7	I/O	Data input / output	37	N.C/RFU	–	No connection / Reserved for future use
13	V_{DDQ}	–	Power supply for data output	38	V_{DDQ}	–	Power supply for data output
14	LDQM	I	Data input / output mask input	39	DQ8	I/O	Data input / output
15	$\overline{WE}$	I	Write enable input	40	DQ9	I/O	Data input / output
16	$\overline{CAS}$	I	Column address strobe input	41	V_{SSQ}	–	Ground for data output
17	$\overline{RAS}$	I	Row address strobe input	42	DQ10	I/O	Data input / output
18	$\overline{CS}$	I	Chip select input	43	DQ11	I/O	Data input / output
19	BA	I	Bank select address input	44	V_{DDQ}	–	Power supply for data output
20	A10/AP	I	Address input	45	DQ12	I/O	Data input / output
21	A0	I	Address input	46	DQ13	I/O	Data input / output
22	A1	I	Address input	47	V_{SSQ}	–	Ground for data output
23	A2	I	Address input	48	DQ14	I/O	Data input / output
24	A3	I	Address input	49	DQ15	I/O	Data input / output
25	V_{DD}	–	Power supply	50	V_{SS}	–	Ground

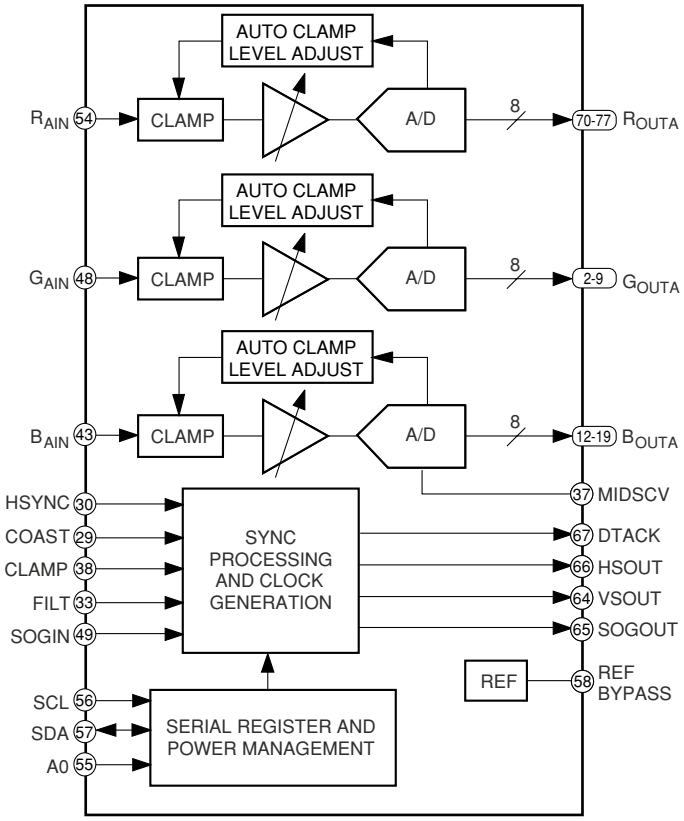
AD9985KSTZ-110 (MR MAIN ASSY : IC6201)

• ADC

● Pin Arrangement (Top view)



● Block Diagram



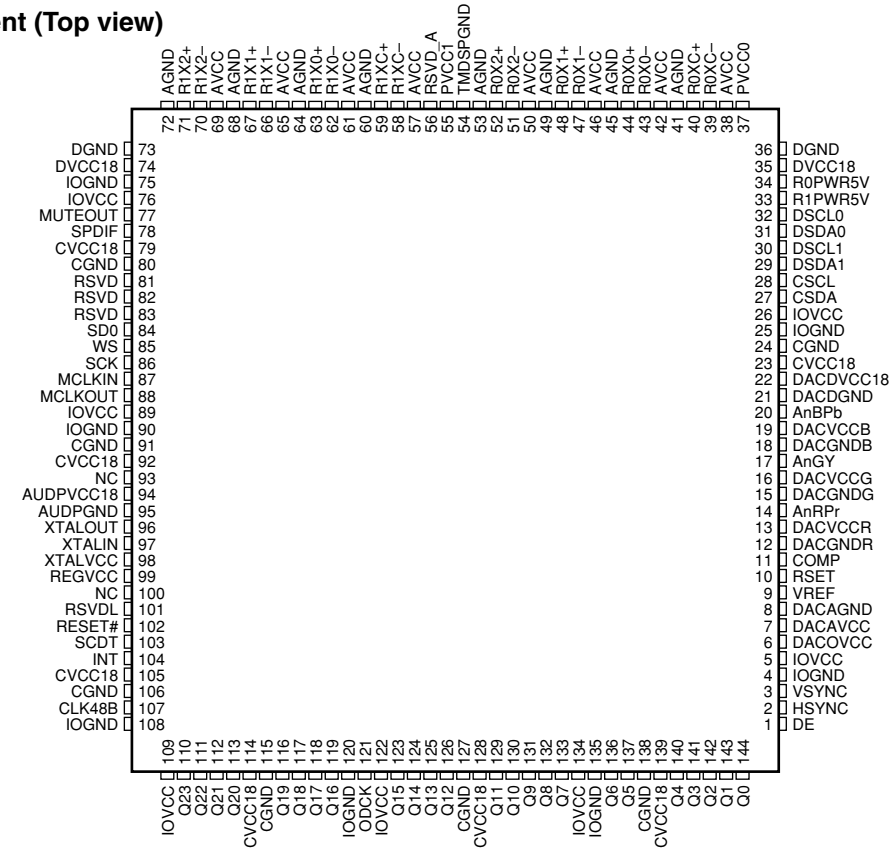
● Pin Function

Pin Type	No.	PIN Name	Pin Function
Inputs	54	RAIN	Analog input for converter R
	48	GAIN	Analog input for converter G
	43	BAIN	Analog input for converter B
	30	HSYNC	Horizontal sync input
	31	VSYNC	Vertical sync input
	49	SOGIN	Input for sync-on green
	38	CLAMP	Clamp input (External CLAMP signal)
	29	COAST	PLL COAST signal input
Outputs	70-77	Red [7 : 0]	Outputs of converter red, bit 7 is the MSB
	2-9	Green [7 : 0]	Outputs of converter green, bit 7 is the MSB
	12-19	Blue [7 : 0]	Outputs of converter blue, bit 7 is the MSB
	67	DATACK	Data output clock
	66	HSOUT	HSYNC output (Phase-aligned with DATACK)
	64	VSOUT	VSYNC output (Phase-aligned with DATACK)
	65	SOGOUT	Sync-on-green slicer output
Reference	58	REF BYPASS	Internal reference bypass
	37	MIDSCV	Internal midscale voltage bypass
	33	FILT	Connection for external filter components for internal PLL
Power Supply	39, 42, 45, 46, 51, 52, 59, 62	VD	Analog power supply
	11, 22, 23, 69, 78, 79	VDD	Output power supply
	26, 27, 34, 35	PVD	PLL power supply
	1, 10, 20, 21, 24, 25, 28, 32, 36, 40, 41, 44, 47, 50, 53, 60, 61, 63 68, 80	GND	Ground
Control	57	SDA	Serial port data I/O
	56	SCL	Serial port data clock (100 kHz maximum)
	55	A0	Serial port address input 1

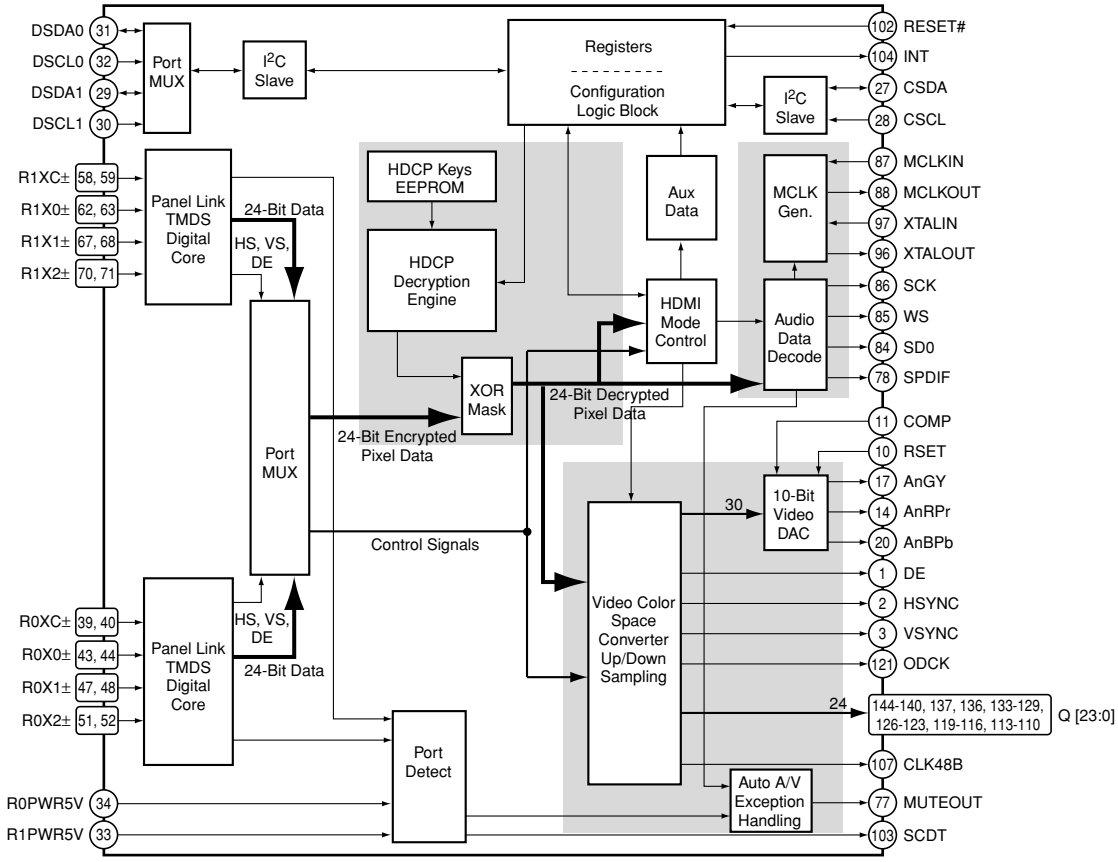
SII9021CTU (MR MAIN ASSY : IC6404)

• HDMI Rx

● Pin Arrangement (Top view)



● Block Diagram



A

● Pin Function

No.	Pin Name	I/O	Pin Function
1	DE	O	Data enable
2	HSYNC	O	Horizontal sync output control signal
3	VSYNC	O	Vertical sync output control signal
4	IOGND	–	Input / output pin ground
5	IOVCC	–	Input / output pin VCC
6	DACOVCC	–	DAC output VCC
7	DACAVCC	–	DAC analog VCC
8	DACAGND	–	DAC analog ground
9	VREF	–	–
10	RSET	–	Full scale adjust resistor
11	COMP	–	Compensation
12	DACGNDR	–	DAC red ground
13	DACVCCR	–	DAC red VDD
14	AnRPr	O	Analog video red, Pr output
15	DACGNDG	–	DAC green ground
16	DACVCCG	–	DAC green VDD
17	AnGY	O	Analog video green, Y output
18	DACGNDB	–	DAC blue ground
19	DACVCCB	–	DAC blue VDD
20	AnBPb	O	Analog video blue, Pb output
21	DACDGND	–	DAC digital ground
22	DACDVCC18	–	DAC digital VCC
23	CVCC18	–	Digital logic VCC
24	CGND	–	Digital logic ground
25	IOGND	–	Input / output pin ground
26	IOVCC	–	Input / output pin VCC
27	CSDA	I/O	Configuration I^2C data
28	CSCL	I	Configuration I^2C clock
29	DSDA1	I/O	DDC I^2C data for port 1
30	DSCL1	I	DDC I^2C clock for port 1
31	DSDA0	I/O	DDC I^2C data for port 0
32	DSCL0	I	DDC I^2C clock for port 0
33	R1PWR5V	I	Port 1 transmitter detect
34	R0PWR5V	I	Port 0 transmitter detect
35	DVCC18	–	ACR PLL digital VCC
36	DGND	–	ACR PLL ground
37	PVCC0	–	TMDS port 0 PLL VCC
38	AVCC	–	TMDS analog VCC
39	R0XC–	I	TMDS input clock
40	R0XC+	I	TMDS input clock
41	AGND	–	TMDS analog ground
42	AVCC	–	TMDS analog VCC
43	R0X0–	I	TMDS input data
44	R0X0+	I	TMDS input data
45	AGND	–	TMDS analog ground
46	AVCC	–	TMDS analog VCC
47	R0X1–	I	TMDS input data
48	R0X1+	I	TMDS input data
49	AGND	–	TMDS analog ground
50	AVCC	–	TMDS analog VCC

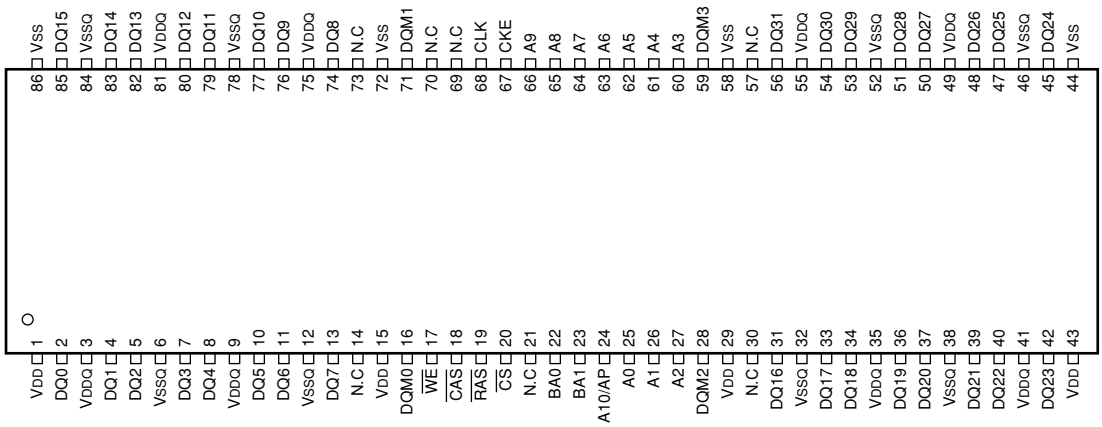
No.	Pin Name	I/O	Pin Function
51	R0X2–	I	TMDS input data
52	R0X2+	I	TMDS input data
53	AGND	–	TMDS analog ground
54	TMDSPGND	–	TMDS PLL ground
55	PVCC1	–	TMDS port 1 PLL VCC
56	RSVD_A	–	Reserved pin
57	AVCC	–	TMDS analog VCC
58	R1XC–	I	TMDS input clock
59	R1XC+	I	TMDS input clock
60	AGND	–	TMDS analog ground
61	AVCC	–	TMDS analog VCC
62	R1X0–	I	TMDS input data
63	R1X0+	I	TMDS input data
64	AGND	–	TMDS analog ground
65	AVCC	–	TMDS analog VCC
66	R1X1–	I	TMDS input data
67	R1X1+	I	TMDS input data
68	AGND	–	TMDS analog ground
69	AVCC	–	TMDS analog VCC
70	R1X2–	I	TMDS input data
71	R1X2+	I	TMDS input data
72	AGND	–	TMDS analog ground
73	DGND	–	ACR PLL ground
74	DVCC18	–	ACR PLL digital VCC
75	IOGND	–	Input / output pin ground
76	IOVCC	–	Input / output pin VCC
77	MUTEOUT	O	Mute audio output
78	SPDIF	O	S/PDIF audio output
79	CVCC18	–	Digital logic VCC
80	CGND	–	Digital logic ground
81	RSVD	O	–
82	RSVD	O	–
83	RSVD	O	–
84	SD0	O	I^2S serial data output
85	WS	O	I^2S word select output
86	SCK	O	I^2S serial clock output
87	MCLKIN	I	Audio master clock input reference
88	MCLKOUT	O	Audio master clock output
89	IOVCC	–	Input / output pin VCC
90	IOGND	–	Input / output pin ground
91	CGND	–	Digital logic ground
92	CVCC18	–	Digital logic VCC
93	NC	–	No connection
94	AUDPVCC18	–	ACR PLL VCC
95	AUDPGND	–	ACR PLL ground
96	XTALOUT	O	Crystal clock output
97	XTALIN	I	Crystal clock input
98	XTALVCC	–	ACR PLL crystal input VCC
99	REGVCC	–	ACR PLL regulator VCC
100	NC	–	No connection

No.	Pin Name	I/O	Pin Function
101	RSVDL	I	Reserved, must be tied LOW
102	RESET#	I	Reset pin, active LOW
103	SCDT	O	Indicates active video at HDMI input port
104	INT	O	Interrupt output
105	CVCC18	–	Digital logic VCC
106	CGND	–	Digital logic ground
107	CLK48B	I/O	Data bus latch enable
108	IOGND	–	Input / output pin ground
109	IOVCC	–	Input / output pin VCC
110	Q23	O	24-bit output pixel data bus
111	Q22	O	24-bit output pixel data bus
112	Q21	O	24-bit output pixel data bus
113	Q20	O	24-bit output pixel data bus
114	CVCC18	–	Digital logic VCC
115	CGND	–	Digital logic ground
116	Q19	O	24-bit output pixel data bus
117	Q18	O	24-bit output pixel data bus
118	Q17	O	24-bit output pixel data bus
119	Q16	O	24-bit output pixel data bus
120	IOGND	–	Input / output pin ground
121	ODCK	O	Output data clock
122	IOVCC	–	Input / output pin VCC
123	Q15	O	24-bit output pixel data bus
124	Q14	O	24-bit output pixel data bus
125	Q13	O	24-bit output pixel data bus
126	Q12	O	24-bit output pixel data bus
127	CGND	–	Digital logic ground
128	CVCC18	–	Digital logic VCC
129	Q11	O	24-bit output pixel data bus
130	Q10	O	24-bit output pixel data bus
131	Q9	O	24-bit output pixel data bus
132	Q8	O	24-bit output pixel data bus
133	Q7	O	24-bit output pixel data bus
134	IOVCC	–	Input / output pin VCC
135	IOGND	–	Input / output pin ground
136	Q6	O	24-bit output pixel data bus
137	Q5	O	24-bit output pixel data bus
138	CGND	–	Digital logic ground
139	CVCC18	–	Digital logic VCC
140	Q4	O	24-bit output pixel data bus
141	Q3	O	24-bit output pixel data bus
142	Q2	O	24-bit output pixel data bus
143	Q1	O	24-bit output pixel data bus
144	Q0	O	24-bit output pixel data bus

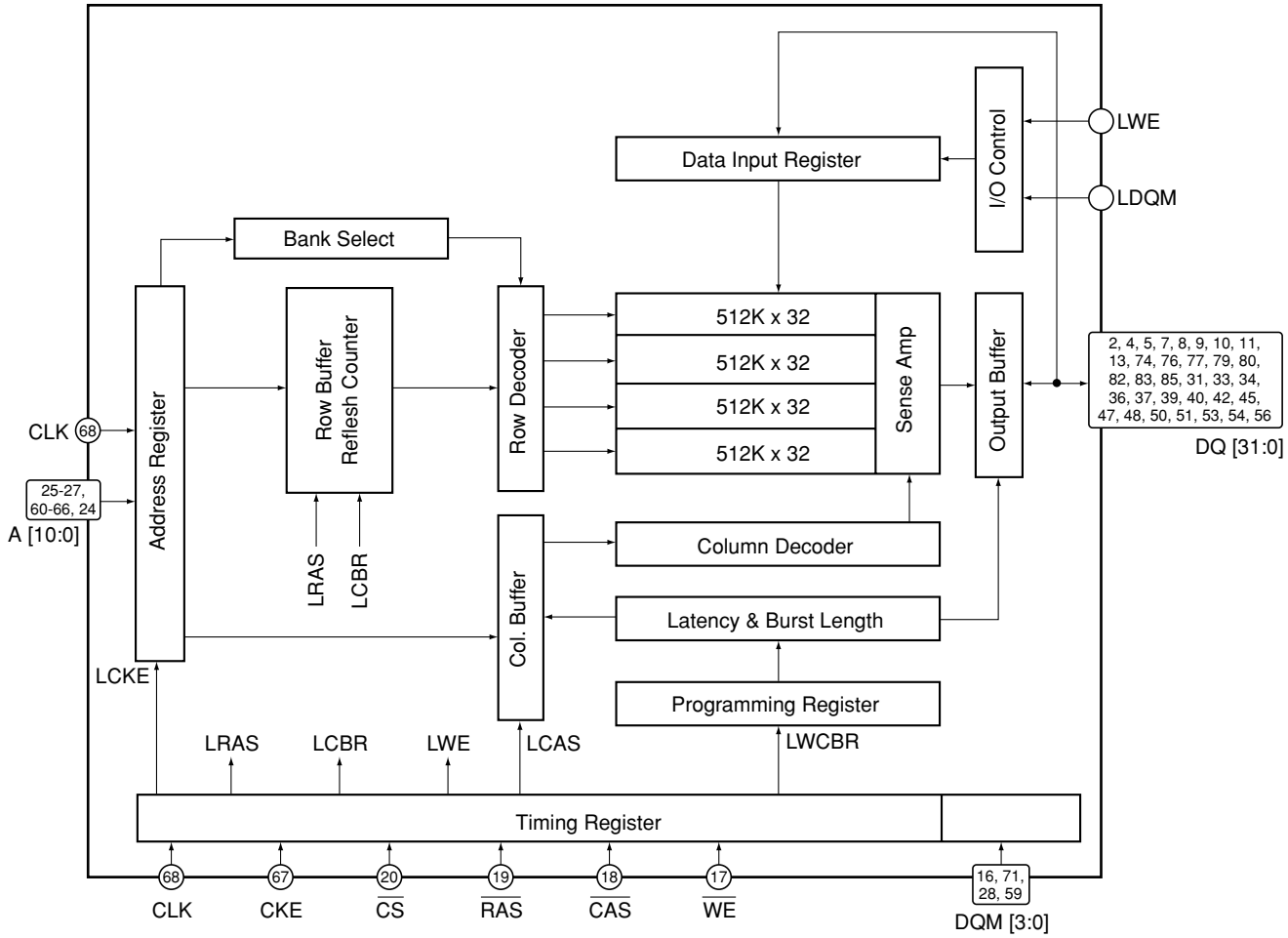
K4S643232H-TC60 (MR MAIN ASSY : IC6801, IC6802)

• 64M SDRAM (for Silvia)

● Pin Arrangement (Top view)



● Block Diagram



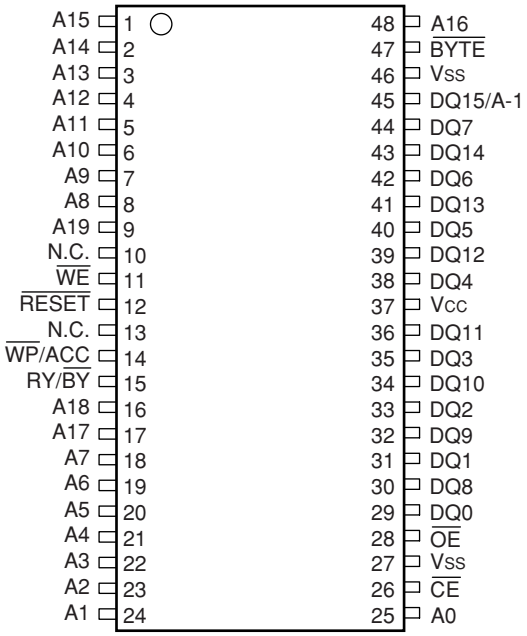
● Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	V_{DD}	–	Power supply	44	V_{SS}	–	Ground
2	DQ0	I/O	Data input / output	45	DQ24	I/O	Data input / output
3	V_{DDQ}	–	Power supply for data output	46	V_{SSQ}	–	Ground for data output
4	DQ1	I/O	Data input / output	47	DQ25	I/O	Data input / output
5	DQ2	I/O	Data input / output	48	DQ26	I/O	Data input / output
6	V_{SSQ}	–	Ground for data output	49	V_{DDQ}	–	Power supply for data output
7	DQ3	I/O	Data input / output	50	DQ27	I/O	Data input / output
8	DQ4	I/O	Data input / output	51	DQ28	I/O	Data input / output
9	V_{DDQ}	–	Power supply for data output	52	V_{SSQ}	–	Ground for data output
10	DQ5	I/O	Data input / output	53	DQ29	I/O	Data input / output
11	DQ6	I/O	Data input / output	54	DQ30	I/O	Data input / output
12	V_{SSQ}	–	Ground for data output	55	V_{DDQ}	–	Power supply for data output
13	DQ7	I/O	Data input / output	56	DQ31	I/O	Data input / output
14	N.C	–	No connection	57	N.C	–	No connection
15	V_{DD}	–	Power supply	58	V_{SS}	–	Ground
16	DQM0	I	Data input / output mask input	59	DQM3	I	Data input / output mask input
17	$\overline{WE}$	I	Write enable input	60	A3	I	Address input
18	$\overline{CAS}$	I	Column address strobe input	61	A4	I	Address input
19	$\overline{RAS}$	I	Row address strobe input	62	A5	I	Address input
20	$\overline{CS}$	I	Chip select input	63	A6	I	Address input
21	N.C	–	No connection	64	A7	I	Address input
22	BA0	I	Bank select address input	65	A8	I	Address input
23	BA1	I	Bank select address input	66	A9	I	Address input
24	A10/AP	I	Address input	67	CKE	I	Clock enable input
25	A0	I	Address input	68	CLK	I	System clock input
26	A1	I	Address input	69	N.C	–	No connection
27	A2	I	Address input	70	N.C	–	No connection
28	DQM2	I	Data input / output mask input	71	DQM1	I	Data input / output mask input
29	V_{DD}	–	Power supply	72	V_{SS}	–	Ground
30	N.C	–	No connection	73	N.C	–	No connection
31	DQ16	I/O	Data input / output	74	DQ8	I/O	Data input / output
32	V_{SSQ}	–	Ground for data output	75	V_{DDQ}	–	Power supply for data output
33	DQ17	I/O	Data input / output	76	DQ9	I/O	Data input / output
34	DQ18	I/O	Data input / output	77	DQ10	I/O	Data input / output
35	V_{DDQ}	–	Power supply for data output	78	V_{SSQ}	–	Ground for data output
36	DQ19	I/O	Data input / output	79	DQ11	I/O	Data input / output
37	DQ20	I/O	Data input / output	80	DQ12	I/O	Data input / output
38	V_{SSQ}	–	Ground for data output	81	V_{DDQ}	–	Power supply for data output
39	DQ21	I/O	Data input / output	82	DQ13	I/O	Data input / output
40	DQ22	I/O	Data input / output	83	DQ14	I/O	Data input / output
41	V_{DDQ}	–	Power supply for data output	84	V_{SSQ}	–	Ground for data output
42	DQ23	I/O	Data input / output	85	DQ15	I/O	Data input / output
43	V_{DD}	–	Power supply	86	V_{SS}	–	Ground

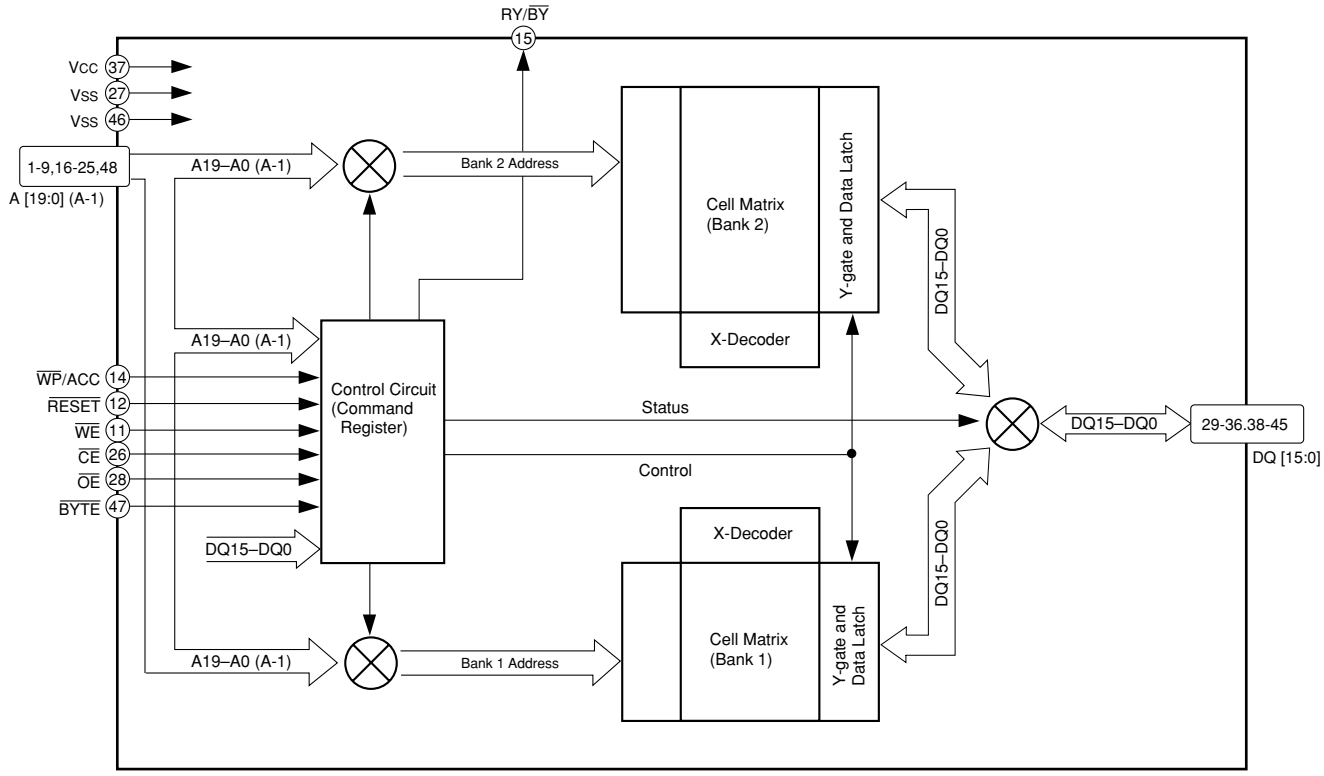
MBM29DL162TE70TN (MR MAIN ASSY : IC5207, IC7002)

• 16M Flash for Carrera MANTA

● Pin Arrangement (Top view)



● Block Diagram



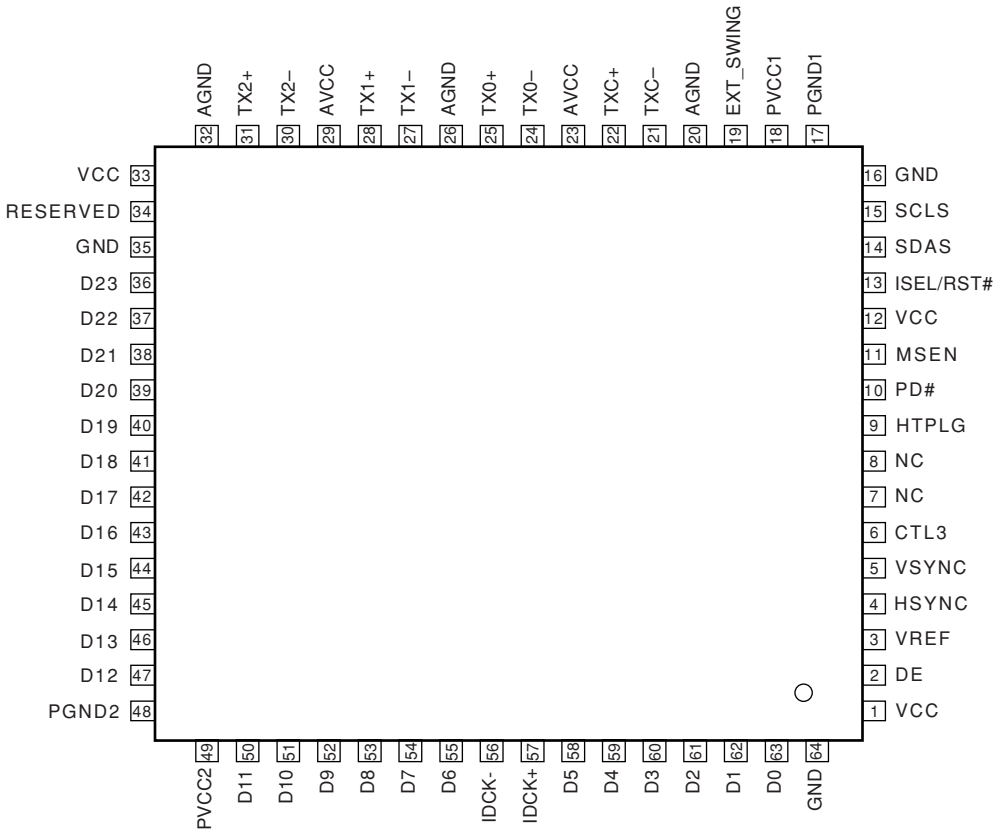
● Pin Function

No.	Pin Name	I/O	Pin Function
1	A15	I	Address input
2	A14	I	Address input
3	A13	I	Address input
4	A12	I	Address input
5	A11	I	Address input
6	A10	I	Address input
7	A9	I	Address input
8	A8	I	Address input
9	A19	I	Address input
10	N.C.	I	No connection
11	$\overline{WE}$	I	Write enable input
12	$\overline{RESET}$	I	Hardware reset
13	N.C.	–	No connection
14	$\overline{WP}$/ACC	I	Hardware write protect / Acceleration
15	RY/$\overline{BY}$	O	Ready / Busy output
16	A18	I	Address input
17	A17	I	Address input
18	A7	I	Address input
19	A6	I	Address input
20	A5	I	Address input
21	A4	I	Address input
22	A3	I	Address input
23	A2	I	Address input
24	A1	I	Address input
25	A0	I	Address input
26	$\overline{CE}$	I	Chip enable input
27	Vss	–	Ground
28	$\overline{OE}$	I	Output enable input
29	DQ0	I/O	Data input / output
30	DQ8	I/O	Data input / output
31	DQ1	I/O	Data input / output
32	DQ9	I/O	Data input / output
33	DQ2	I/O	Data input / output
34	DQ10	I/O	Data input / output
35	DQ3	I/O	Data input / output
36	DQ11	I/O	Data input / output
37	Vcc	–	Power supply
38	DQ4	I/O	Data input / output
39	DQ12	I/O	Data input / output
40	DQ5	I/O	Data input / output
41	DQ13	I/O	Data input / output
42	DQ6	I/O	Data input / output
43	DQ14	I/O	Data input / output
44	DQ7	I/O	Data input / output
45	DQ15/A-1	I/O	Data input / output / Address input
46	Vss	–	Ground
47	$\overline{BYTE}$	I	Selects 8-bit or 16-bit mode
48	A16	I	Address input

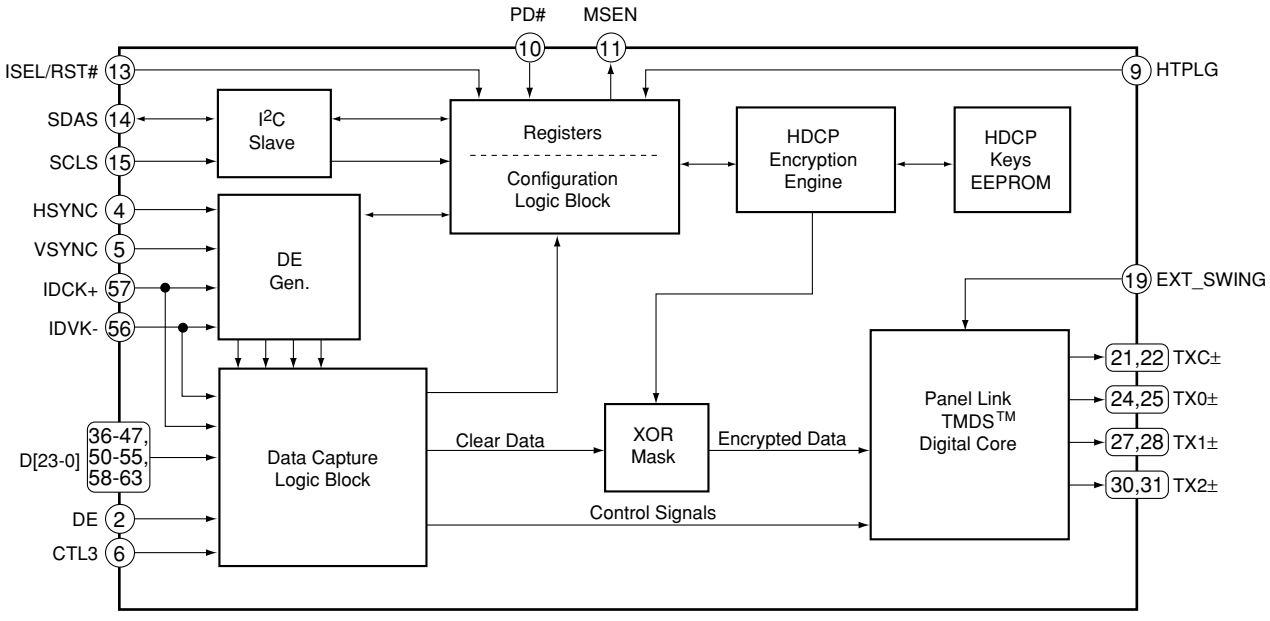
■ SII170BCLG64 (MR MAIN ASSY : IC7202)

• DVI Tx

● Pin Arrangement (Top view)



● Block Diagram



● Pin Function

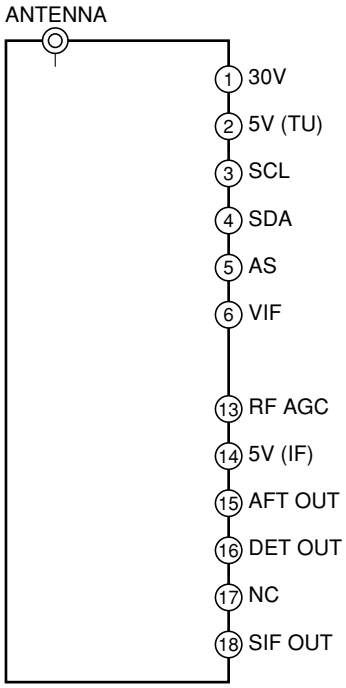
No.	Pin Name	I/O	Pin Function
1	VCC	–	Digital power supply (3.3V)
2	DE	I	Data enable
3	VREF	I	3.3V fixed
4	HSYNC	I	Horizontal sync. control signal input
5	VSYNC	I	Vertical sync. control signal input
6	CTL3	I	External CTL3 input
7	NC	–	No connection
8	NC	–	No connection
9	HTPLG	I	Monitor chrage input
10	PD#	I	Power down input (Active low)
11	MSEN	O	Monitor sense output (open-collector output)
12	VCC	–	Digital power supply (3.3V)
13	ISEL/RST#	I	I2C interface selecting input High: I2C interface is active
14	SDAS	I/O	DDC I2C data input/output
15	SCLS	I	DDC I2C clock input
16	GND	–	Digital ground
17	PGND1	–	PLL analog ground
18	PVCC1	–	Analog power supply for PLL of primary side (3.3V)
19	EXT_SWING	I	Voltage regulation adjustment
20	AGND	–	Analog ground
21	TXC–	O	Differential signal clock output of TMDS Low voltage
22	TXC+	O	Differential signal clock output of TMDS Low voltage
23	AVCC	–	Analog power supply (3.3V)
24	TX0–	O	Differential signal clock output of TMDS Low voltage
25	TX0+	O	Differential signal clock output of TMDS Low voltage
26	AGND	–	Analog ground
27	TX1–	O	Differential signal clock output of TMDS Low voltage
28	TX1+	O	Differential signal clock output of TMDS Low voltage
29	AVCC	–	Analog power supply (3.3V)
30	TX2-	O	Differential signal clock output of TMDS Low voltage
31	TX2+	O	Differential signal clock output of TMDS Low voltage
32	AGND	–	Analog ground
33	VCC	–	Digital power supply (3.3V)
34	RESERVED	I	Reserved pin for Silicon Image Normally, fixed to low.
35	GND	–	Digital ground
36	D23	I	24-bit pixel bus input
37	D22	I	24-bit pixel bus input
38	D21	I	24-bit pixel bus input
39	D20	I	24-bit pixel bus input
40	D19	I	24-bit pixel bus input

No.	Pin Name	I/O	Pin Function
41	D18	I	24-bit pixel bus input
42	D17	I	24-bit pixel bus input
43	D16	I	24-bit pixel bus input
44	D15	I	24-bit pixel bus input
45	D14	I	24-bit pixel bus input
46	D13	I	24-bit pixel bus input
47	D12	I	24-bit pixel bus input
48	PGND2	–	PLL analog ground
49	PVCC2	–	Analog power supply for filter PLL (3.3V)
50	D11	I	24-bit / 12-bit pixel bus input
51	D10	I	24-bit / 12-bit pixel bus input
52	D9	I	24-bit / 12-bit pixel bus input
53	D8	I	24-bit / 12-bit pixel bus input
54	D7	I	24-bit / 12-bit pixel bus input
55	D6	I	24-bit / 12-bit pixel bus input
56	IDCK–	I	Data clock - input
57	IDCK+	I	Data clock + input
58	D5	I	24-bit / 12-bit pixel bus input
59	D4	I	24-bit / 12-bit pixel bus input
60	D3	I	24-bit / 12-bit pixel bus input
61	D2	I	24-bit / 12-bit pixel bus input
62	D1	I	24-bit / 12-bit pixel bus input
63	D0	I	24-bit / 12-bit pixel bus input
64	GND	–	Digital ground

AXF1150 (MR MAIN ASSY : U4401)

• Front End

● Pin Arrangement



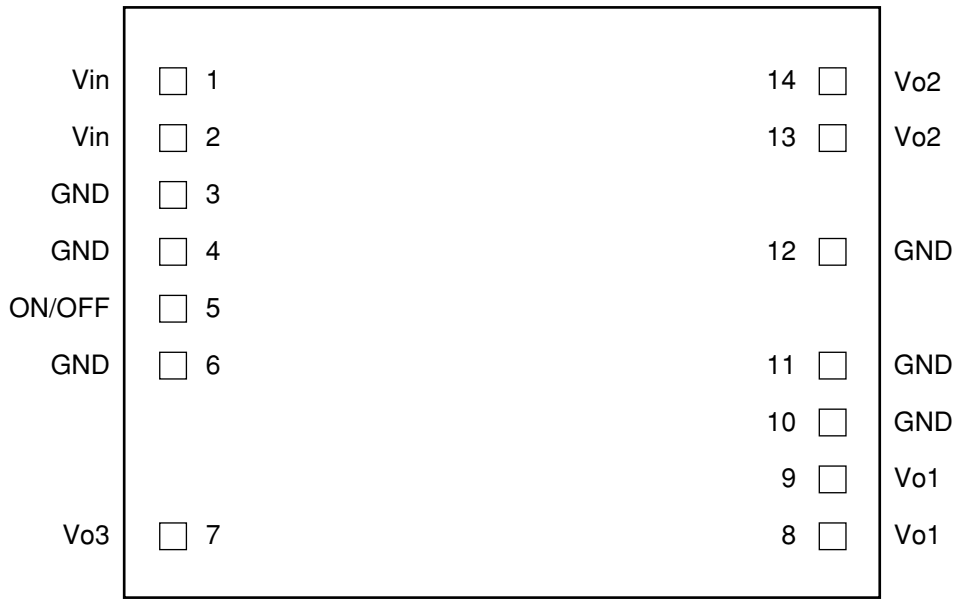
● Pin Function

No.	Pin Name	Pin Function
1	30V	Power supply for 30V
2	5V (TU)	Power supply for tuner
3	SCL	Terminal for I2C bus control
4	SDA	
5	AS	
6	VIF	VIF output
13	RF AGC	RF AGC terminal
14	5V (IF)	Power supply for IF
15	AFT OUT	Analog AFT output
16	DET OUT	VIDEO output (Typical = 1.0Vp-p)
17	NC	No connection
18	SIF OUT	SIF output

■ AXY1117 (MR MAIN ASSY: U4201)

• 3 Outputs DD Control Unit

● Pin Arrangement

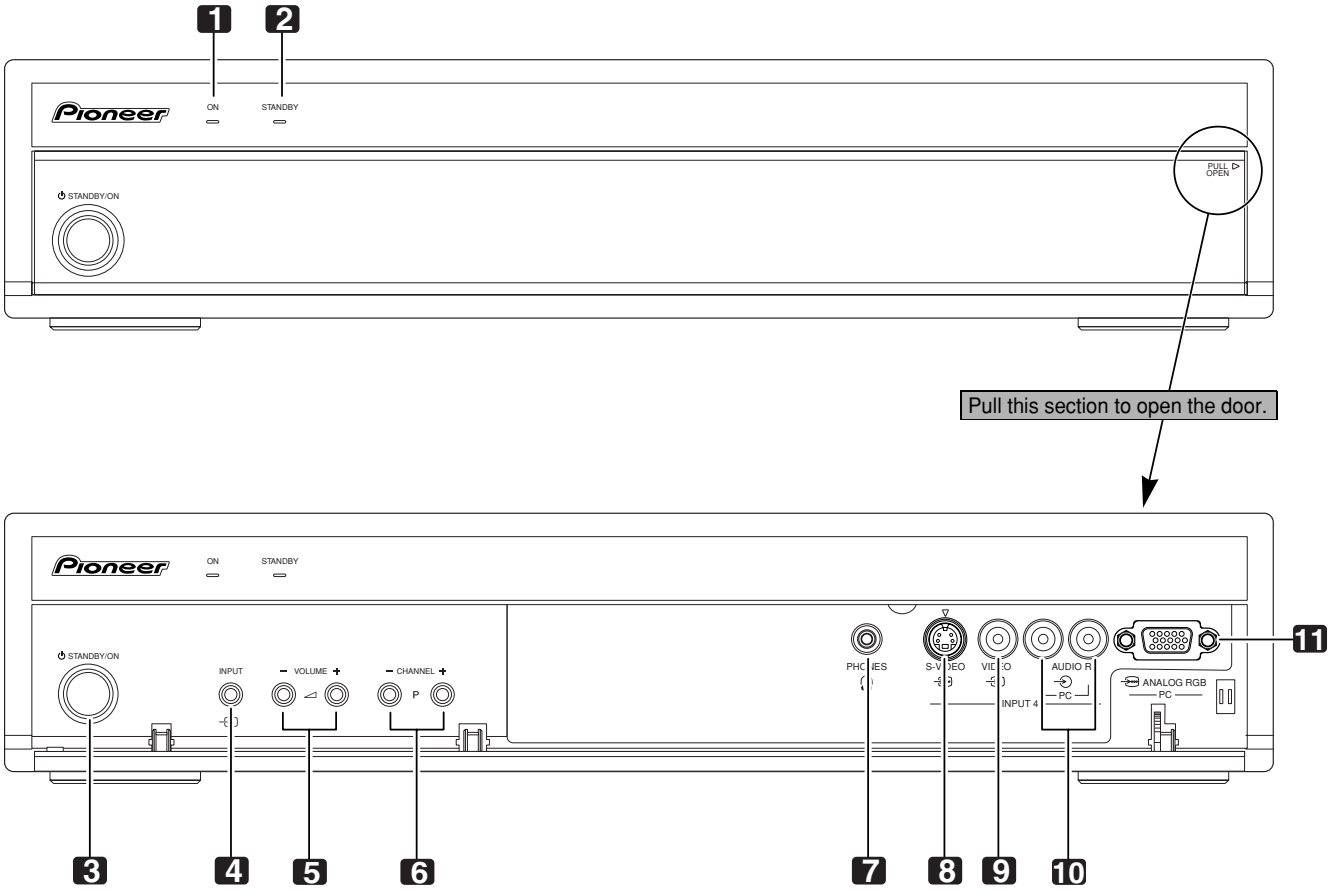


● Pin Function

No.	Pin Name	Pin Function
1	Vin	Input
2	Vin	
3	GND	Ground for input side
4	GND	
5	ON/OFF	Output ON/OFF
6	GND	Ground for output side
7	Vo3	1.8V output
8	Vo1	3.3V output
9	Vo1	3.3V output
10	GND	Ground for output side
11	GND	
12	GND	
13	Vo2	1.2V output
14	Vo2	1.2V output

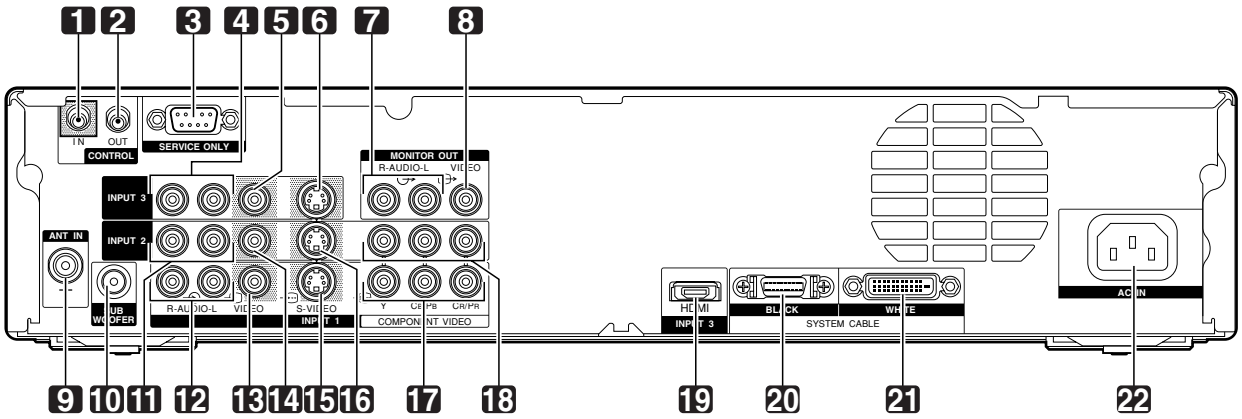
8. PANEL FACILITIES

■ Front view



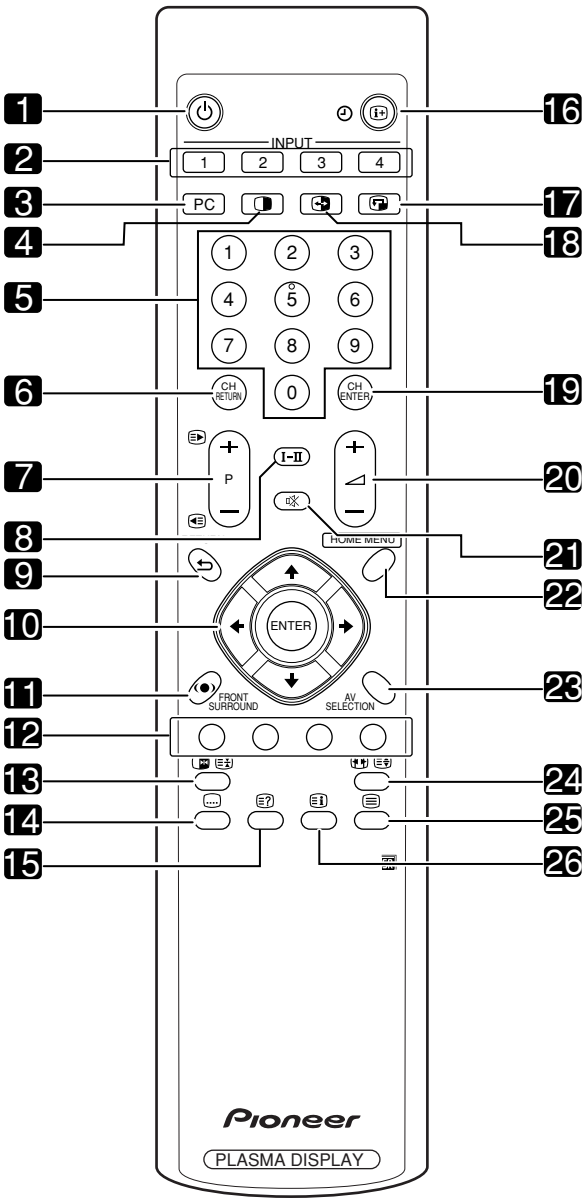
1 POWER ON indicator
2 STANDBY indicator
3 **STANDBY/ON** button
4 **INPUT** button
5 **VOLUME +/–** buttons
6 **CHANNEL +/–** buttons
7 PHONES output terminal
8 INPUT 4 terminal (S-VIDEO)
9 INPUT 4 terminal (VIDEO)
10 INPUT 4/PC INPUT terminals (AUDIO)
11 PC INPUT terminal (ANALOG RGB)

■ Rear view



1 CONTROL IN terminal
2 CONTROL OUT terminal
3 RS-232C terminal (used for factory setup)
4 INPUT 3 terminals (AUDIO)
5 INPUT 3 terminal (VIDEO)
6 INPUT 3 terminal (S-VIDEO)
7 MONITOR OUT terminals (AUDIO)
8 MONITOR OUT terminal (VIDEO)
9 ANT (Antenna) IN terminal
10 SUB WOOFER output terminal
11 INPUT 2 terminals (AUDIO)
12 INPUT 1 terminals (AUDIO)
13 INPUT 1 terminal (VIDEO)
14 INPUT 2 terminal (VIDEO)
15 INPUT 1 terminal (S-VIDEO)
16 INPUT 2 terminal (S-VIDEO)
17 INPUT 1 terminals (COMPONENT VIDEO: Y, CB/PB, CR/PR)
18 INPUT 2 terminals (COMPONENT VIDEO: Y, CB/PB, CR/PR)
19 INPUT 3 terminal (HDMI)
20 SYSTEM CABLE terminal (BLACK)
21 SYSTEM CABLE terminal (WHITE)
22 AC IN terminal

■ Remote control unit



1 ⏻
Turns on the power to the Plasma Display or places it into standby mode.

2 INPUT 1, 2, 3, 4
Selects an input source of the Plasma Display. (INPUT1, INPUT2, INPUT3, INPUT4).

3 PC
Selects the PC terminal as an input source.

4 ◑
Switches the screen mode among 2-screen, picture-in-picture, and single-screen.

5 0 - 9
Switches on the power to the Plasma Display.
TV/External input mode: Selects a channel.
TELETEXT mode: Selects a page.

6 CH RETURN
Returns to the previous channel.

7 P +/P –
TV/External input mode: Selects a channel.
▶/◀
TELETEXT mode: Selects a page.

8 I-II
Sets the sound multiplex mode.

9 ⮌ (RETURN)
Restores the previous menu screen.

10 ↑/↓/←/→
Selects a desired item on the setting screen.
ENTER
Executes a command.

11 FRONT SURROUND
Switches the Front Surround mode.

12 Color (RED/GREEN/YELLOW/BLUE)
TELETEXT mode: Selects a page.

13
Freezes a frame from a moving image. Press again to cancel the function.
TELETEXT mode: Stops updating Teletext pages. Press again to release the hold mode.

14
Jumps to the Teletext subtitle page.

15
TELETEXT mode: Displays hidden characters.

16
Displays the channel information.

17
Moves the location of the small screen when in the picture-in-picture mode.

18
Switches between the two screens when in the 2-screen or picture-in-picture mode.

19 CH ENTER
Executes a channel number.

20 +/–
Sets the volume.

21
Mutes the sound.

22 HOME MENU
TV/External Input mode: Displays the Menu screen.

23 AV SELECTION
Selects audio and video settings.
(AV mode: STANDARD, DYNAMIC, MOVIE, GAME, USER. PC mode: STANDARD, USER.)

24
TV/External input mode: Changes the wide screen size.
TELETEXT mode: Switches Teletext images. (full/upper half/lower half)

25
Selects the TELETEXT mode.
(all TV image, all TEXT image, TV/TEXT image)

26
TELETEXT mode: Displays an Index page for the CEEFAX/FLOF format. Displays a TOP Over View page for the TOP format.

NOTE: When using the remote control unit, point it at the Plasma Display.

A

B

C

D

E

F

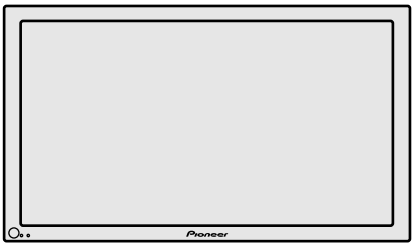
■ Cleaning

• Before shipping out the product, be sure to clean the following positions by using the prescribed cleaning tools:

Position to be cleaned	Cleaning tools	Remark
Fans	Cleaning paper : GED-008	Refer to "2.3 EXTERIOR SECTION" , "7.1.2 DISASSEMBLY SECTION".

Pioneer sound.vision.soul

Service Manual



PDP-5004

ORDER NO.
ARP3221

PLASMA DISPLAY

PDP-5004
PDP-4304
PDP-5014
PDP-4314

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
PDP-5004	KUC	AC120V	
PDP-5014	KUC	AC120V	
PDP-4304	KUC	AC120V	
PDP-4314	KUC	AC120V	

This service manual should be used together with the following manual(s).

Model No.	Order No.	Remarks
PDP-5004, PDP-5014 PDP-4304, PDP-4314	ARP3222	SCHEMATIC DIAGRAM, PCB CONNECTION DIAGRAM



For details, refer to "Important Check Points for Good Servicing".

PIONEER CORPORATION 4-1, Meguro 1-chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS (USA) INC. P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A.
PIONEER EUROPE NV Haven 1087, Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 253 Alexandra Road, #04-01, Singapore 159936
ⓒ**PIONEER CORPORATION 2004**

T-ZZY SEPT. 2004 printed in Japan

SAFETY INFORMATION

This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 - Proposition 65

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

SAFETY PRECAUTIONS

NOTICE : Comply with all cautions and safety related notes located on or inside the cabinet and on the chassis.

The following precautions should be observed :

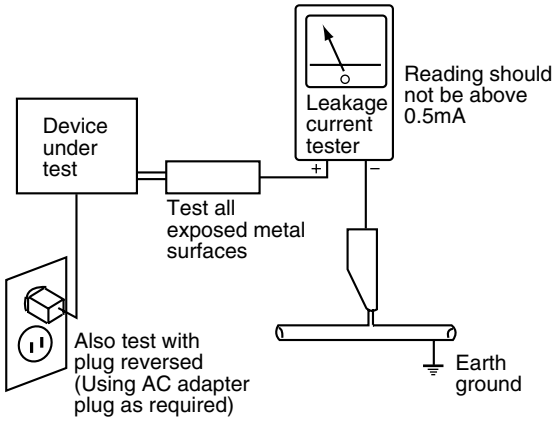
1. When service is required, even though the PDP UNIT an isolation transformer should be inserted between the power line and the set in safety before any service is performed.
2. When replacing a chassis in the set, all the protective devices must be put back in place, such as barriers, nonmetallic knobs, adjustment and compartment covershields, isolation resistor-capacitor, etc.
3. When service is required, observe the original lead dress. Extra precaution should be taken to assure correct lead dress in the high voltage circuitry area.
4. Always use the manufacture's replacement components. Especially critical components as indicated on the circuit diagram should not be replaced by other manufacture's. Furthermore where a short circuit has occurred, replace those components that indicate evidence of overheating.
5. Before returning a serviced set to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the set by the manufacture has become defective, or inadvertently defeated during servicing. Therefore, the following checks should be performed for the continued protection of the customer and servicetechnician.
6. Perform the following precautions against unwanted radiation and rise in internal temperature.
   - Always return the internal wiring to the original styling.
   - Attach parts (Gascket, Ferrite Core, Ground, Rear Cover, Shield Case etc.) surely after disassembly.
7. Perform the following precautions for the PDP panel.
   - When the front case is removed, make sure nothing hits the panel face, panel corner, and panel edge (so that the glass does not break).
   - Make sure that the panel vent does not break. (Check that the cover is attached.)
   - Handle the FPC connected to the panel carefully. Twisting or pulling the FPC when connecting it to the connector will cause it to peel off from the panel.
8. Pay attention to the following.
   - When the front case is removed, infrared ray is radiated and may disturb reception of the remote control unit.
   - Pay extreme caution when the front case and rear panel are removed because this may cause a high risk of disturbance to TVs and radios in the surrounding.

Leakage Current Cold Check

With the AC plug removed from an AC power source, place a jumper across the two plug prongs. Turn the AC power switch on. Using an insulation tester (DC 500V), connect one lead to the jumpered AC plug and touch the other lead to each exposed metal part (input/output terminals, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis. Exposed metal parts having a return path to the chassis should have a minimum resistor reading of 0.3MΩ and a maximum resistor reading of 5MΩ. Any resistor value below or above this range indicates an abnormality which requires corrective action. Exposed metal parts not having a return path to the chassis will indicate an open circuit.

Leakage Current Hot Check

Plug the AC line cord directly into an AC power source (do not use an isolation transformer for this check).
Turn the AC power switch on.
Using a "Leakage Current Tester (Simpson Model 229 equivalent)", measure for current from all exposed metal parts of the cabinet (input/output terminals, screwheads, metal overlays, control shaft, etc.), particularly any exposed metal part having a return path to the chassis, to a known earth ground (water pipe, conduit, etc.). Any current measured must not exceed 0.5mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE SET TO THE CUSTOMER.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in PIONEER set have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.
Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire or other hazards.
Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

■Charged Section

The places where the commercial AC power is used without passing through the power supply transformer.
If the places are touched, there is a risk of electric shock. In addition, the measuring equipment can be damaged if it is connected to the GND of the charged section and the GND of the non-charged section while connecting the set directly to the commercial AC power supply. Therefore, be sure to connect the set via an insulated transformer and supply the current.

1. AC Power Cord
2. AC Inlet with Filter
3. Power Switch (S1)
4. Fuse (In the POWER SUPPLY Unit)
5. STB Transformer and Converter Transformer (In the POWER SUPPLY Unit)
6. Other primary side of the POWER SUPPLY Unit

■High Voltage Generating Point

The places where voltage is 100V or more except for the charged places described above. If the places are touched, there is a risk of electric shock.

1. POWER SUPPLY Unit.....(223V)
2. 50 X DRIVE Assy .....(–230V to 223V)
3. 50 Y DRIVE Assy .....(353V)
4. 50 SCAN A Assy ..... (353V)
5. 50 SCAN B Assy ..... (353V)
6. X CONNECTOR A Assy.....(–230V to 223V)
7. X CONNECTOR B Assy.....(–230V to 223V)

: Part is Charged Section.
: Part is the High Voltage Generating Points other than the Charged Section.

• For 50 inch model (PDP-5004, PDP-5014)

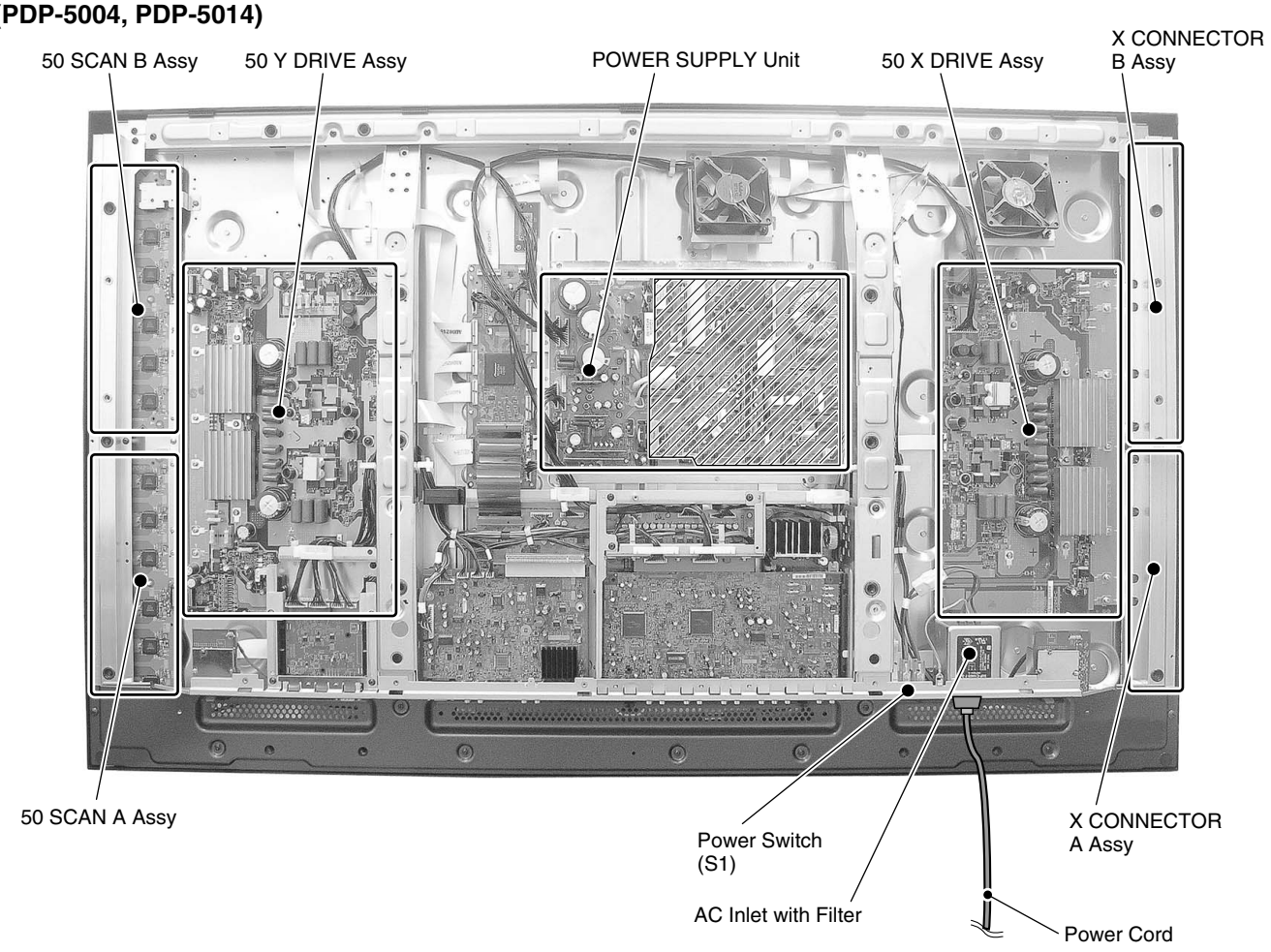


Fig.1 Charged Section and High Voltage Generating Point (Rear View)

■ Charged Section

The places where the commercial AC power is used without passing through the power supply transformer.
If the places are touched, there is a risk of electric shock. In addition, the measuring equipment can be damaged if it is connected to the GND of the charged section and the GND of the non-charged section while connecting the set directly to the commercial AC power supply. Therefore, be sure to connect the set via an insulated transformer and supply the current.

1. AC Power Cord
2. AC Inlet with Filter
3. Power Switch (S1)
4. Fuse (In the POWER SUPPLY Unit)
5. STB Transformer and Converter Transformer (In the POWER SUPPLY Unit)
6. Other primary side of the POWER SUPPLY Unit

■ High Voltage Generating Point

The places where voltage is 100V or more except for the charged places described above. If the places are touched, there is a risk of electric shock.

1. POWER SUPPLY Unit..... (215V)
2. 43 X DRIVE Assy ..... (–225V to 215V)
3. 43 Y DRIVE Assy ..... (345V)
4. 43 SCAN A Assy ..... (345V)
5. 43 SCAN B Assy ..... (345V)
6. X CONNECTOR AAssy ..... (–225V to 215V)
7. X CONNECTOR B Assy ..... (–225V to 215V)

: Part is Charged Section.
: Part is the High Voltage Generating Points other than the Charged Section.

• For 43 inch model (PDP-4304, PDP-4314)

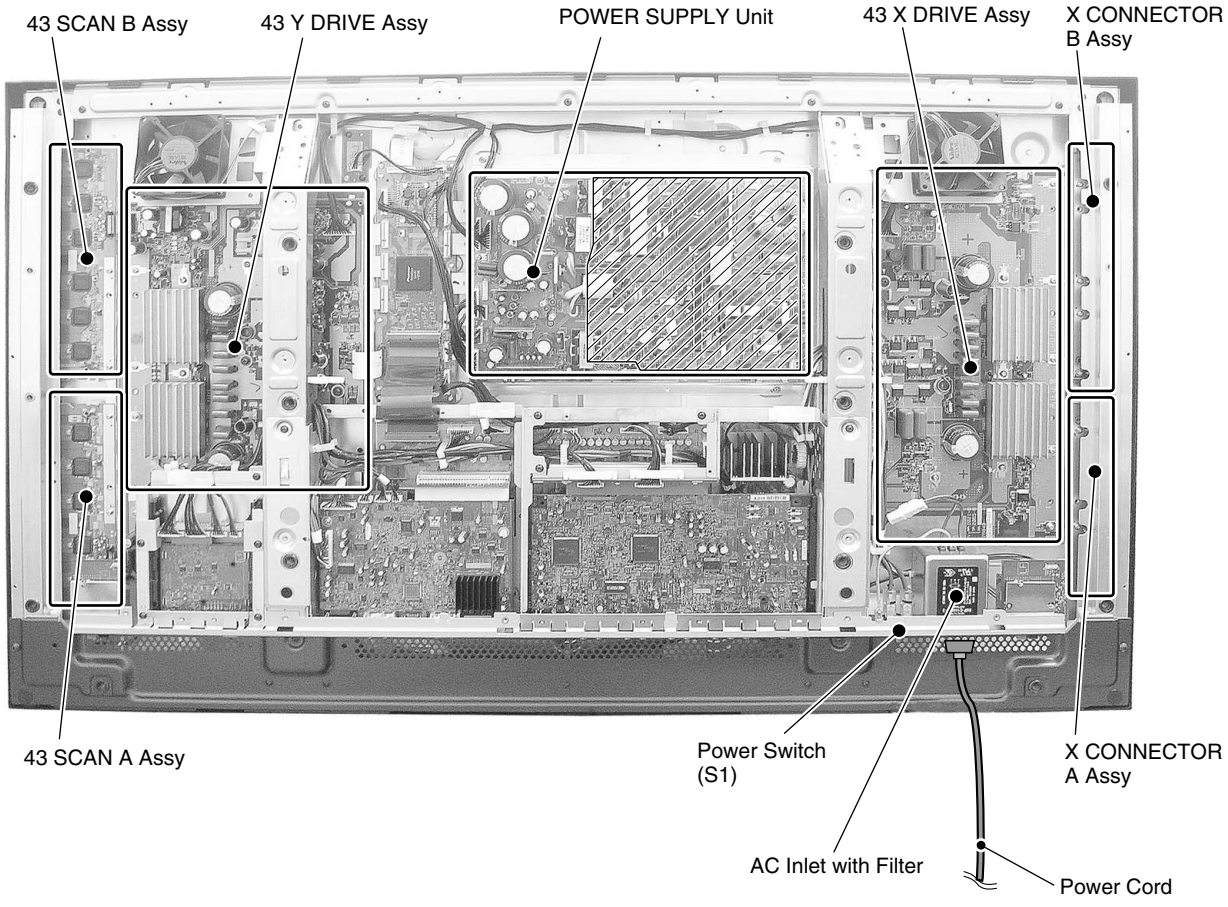


Fig.2 Charged Section and High Voltage Generating Point (Rear View)

[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol.
Please be sure to confirm and follow these procedures.

1. Product safety



Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification(addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris.
Soldering should be finished with the proper quantity. (Refer to the example)

④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs.
In addition, be sure that there are no pinched wires, etc.

⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages.
If you find a damaged power cord, please exchange it with a suitable one.

⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries.
Please pay attention to your surroundings and repair safely.

2. Adjustments



To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification.
Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts



Use grease and adhesives that are equal to the specified substance.
Make sure the proper amount is applied.

4. Cleaning



For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

5. Shipping mode and Shipping screws



To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

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1. SPECIFICATIONS

■ PLASMA DISPLAY

General (PDP-5004 /PDP-5014)

Light emission panel ..... 50-inch AC Plasma Panel
109.8 (W) x 62.1 (H) x 126.1 (diagonal) cm
Number of pixels ..... 1280 x 768
Power supply ..... AC 120 V, 60 Hz
Rated current ..... 3.1 A
Standby power consumption ..... 0.6 W
External dimensions
.... 1218 (W) x 714 (H) x 98 (D: Not including handles) mm
47-31/32 (W) x 28-1/8 (H) x 3-7/8
(D: Not including handles) in.
Weight ..... 41.0 kg (90 lbs. 7 oz)
Operating temperature range ..... 0 to 40 °C (32 to 104˚F)

General (PDP-4304/ PDP-4314)

Light emission panel ..... 43-inch AC Plasma Panel
95.2 (W) x 53.6 (H) x 109.3 (diagonal) cm
Number of pixels ..... 1024 x 768
Power supply ..... AC 120 V, 60 Hz
Rated current ..... 2.6 A
Standby power consumption ..... 0.6 W
External dimensions
.... 1070 (W) x 630 (H) x 98 (D: Not including handles) mm
42-1/8 (W) x 24-13/16 (H) x 3-7/8
(D: Not including handles) in.
Weight ..... 33.5 kg (73 lbs. 14 oz)
Operating temperature range ..... 0 to 40 °C (32 to 104˚F)

Input/output

Video

INPUT1

(Input) Mini D-sub 15 pin (socket connector)
- RGB signal (G ON SYNC compatible)
  RGB ... 0.7 Vp-p/75Ω/no sync.
  HD/CS, VD ... TTL level
  /positive and negative polarity
  /2.2 kΩ
  G ON SYNC
  ... 1 Vp-p/75Ω/negative sync.
  *Compatible with Microsoft Plug & Play
  (VESA DDC1/2B)
- Component video signal
  Y ... 1 Vp-p/75Ω negative sync.
  C_B/P_B, C_R/P_R ... 0.7 Vp-p (color100%)/75Ω

INPUT2

(Input) HDMI
- Digital signal
  3.3V T.M.D.S. /50Ω

INPUT3

(Input) S jack (Mini DIN 4 pin)
- Y/C separate video signal
  Y . . . 1 Vp-p/75Ω/negative sync.
  C . . . 0.286 Vp-p/75Ω
  (Color Burst Level)

INPUT4

(Input) RCA jack
- Composite video signal
  1 Vp-p/75Ω/negative sync.

(Output) RCA jack
75Ω /with buffer

INPUT5

(Input) RCA jack
- Component video signal
  Y…1 Vp-p /75Ω negative sync.
  C_B/P_B, C_R/P_R…
  0.7 Vp-p (color 100%) / 75Ω
- RGB signal
  G ON SYNC ...
  1 Vp-p/75Ω/negative sync.
  R/B ... 0.7 Vp-p/75Ω/no sync.

Audio

(Input) AUDIO INPUT (for INPUT1)
Pin jack (x2)
L/R ... 500 mVrms/more than 10 kΩ

AUDIO INPUT (for INPUT2)
Pin jack (x2)
L/R ... 500 mVrms/more than 10 kΩ

AUDIO INPUT (for INPUT3)
Pin jack (x2)
L/R ... 500mVrms/more than 10 kΩ

AUDIO INPUT (for INPUT4)
Pin jack (x2)
L/R ... 500mVrms/more than 10 kΩ

AUDIO INPUT (for INPUT5)
Pin jack (x2)
L/R ... 500mVrms/more than 10 kΩ

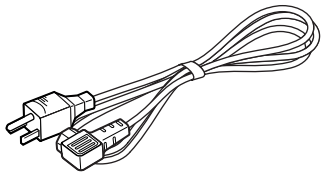
(Output) SPEAKER
L/R ... 8 – 16Ω/7 W +7 W (at 8Ω)

Control

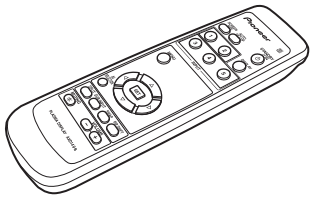
RS-232C... D-sub 9 pin (pin connector)

● Accessories

• Power Cord (ADG1215)



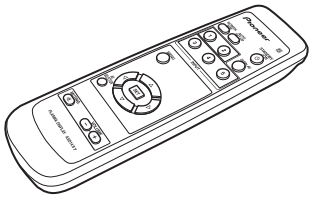
• Remote Control Unit for PDP-5004, PDP-4304 (AXD1496)



• Cleaning Cloth (for wiping front panel) (AED1208)

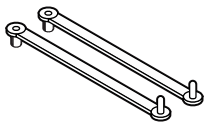


• Remote Control Unit for PDP-5014, PDP-4314 (AXD1497)



• Binder Assy (AEC1758)

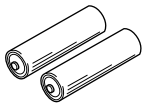
- Speed Clamp (×2)



- Bead Bands (×2)



• Dry Cell Battery (R6P, AA)

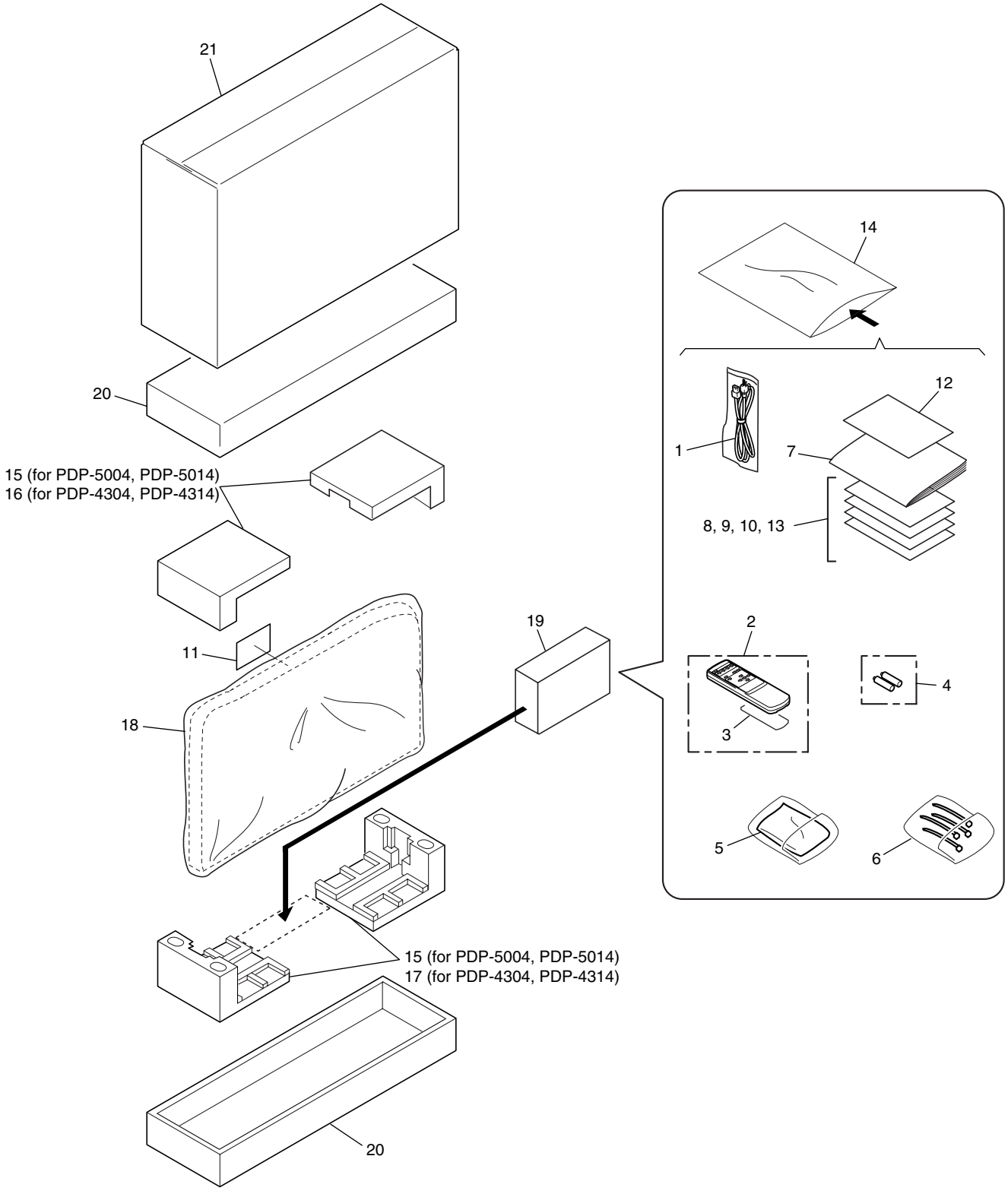


2. EXPLODED VIEWS AND PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent to ▼ mark on product are used for disassembly.*
- *For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)*

2.1 PACKING for PDP-5004, PDP-5014, PDP-4304 and PDP-4314 models

2.1.1 PACKING



PACKING Parts List

Mark	No.	Description	Part No.
⚠	1	Power Cord	ADG1215
	2	Remote Control Unit	See Contrast table (2)
	3	Battery Cover	AZN2462
NSP	4	Dry Cell Battery (R6P, AA)	AEX1026
	5	Wiping Cloth (for screen)	AED1208
	6	Binder Assy (Speed Clamp x2, Bead Band x2)	AEC1758
	7	Operating Instructions (English / French / Spanish)	ARE1386
	8	Plasma Caution Sheet	ARM1145
	9	Caution Sheet	ARM1176
	10	Caution Sheet	ARM1194
	11	Caution Sheet	ARM1201
NSP	12	Warranty Card	ARY1138
NSP	13	Card	VRY1132
	14	Vinyl Bag	AHG1310
	15	Pad	See Contrast table (2)
	16	Pad (43U)	See Contrast table (2)
	17	Pad (43L)	See Contrast table (2)
	18	Mirror Mat	AHG1284
	19	Accessory Case	AHC1036
	20	Under Carton	See Contrast table (2)
	21	Upper Carton	See Contrast table (2)

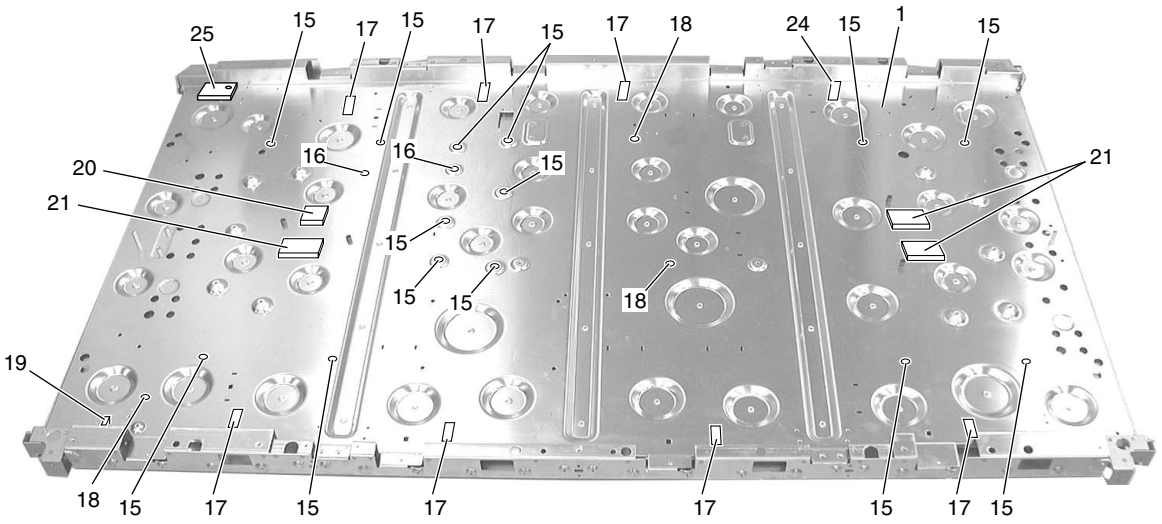
(2) CONTRAST TABLE

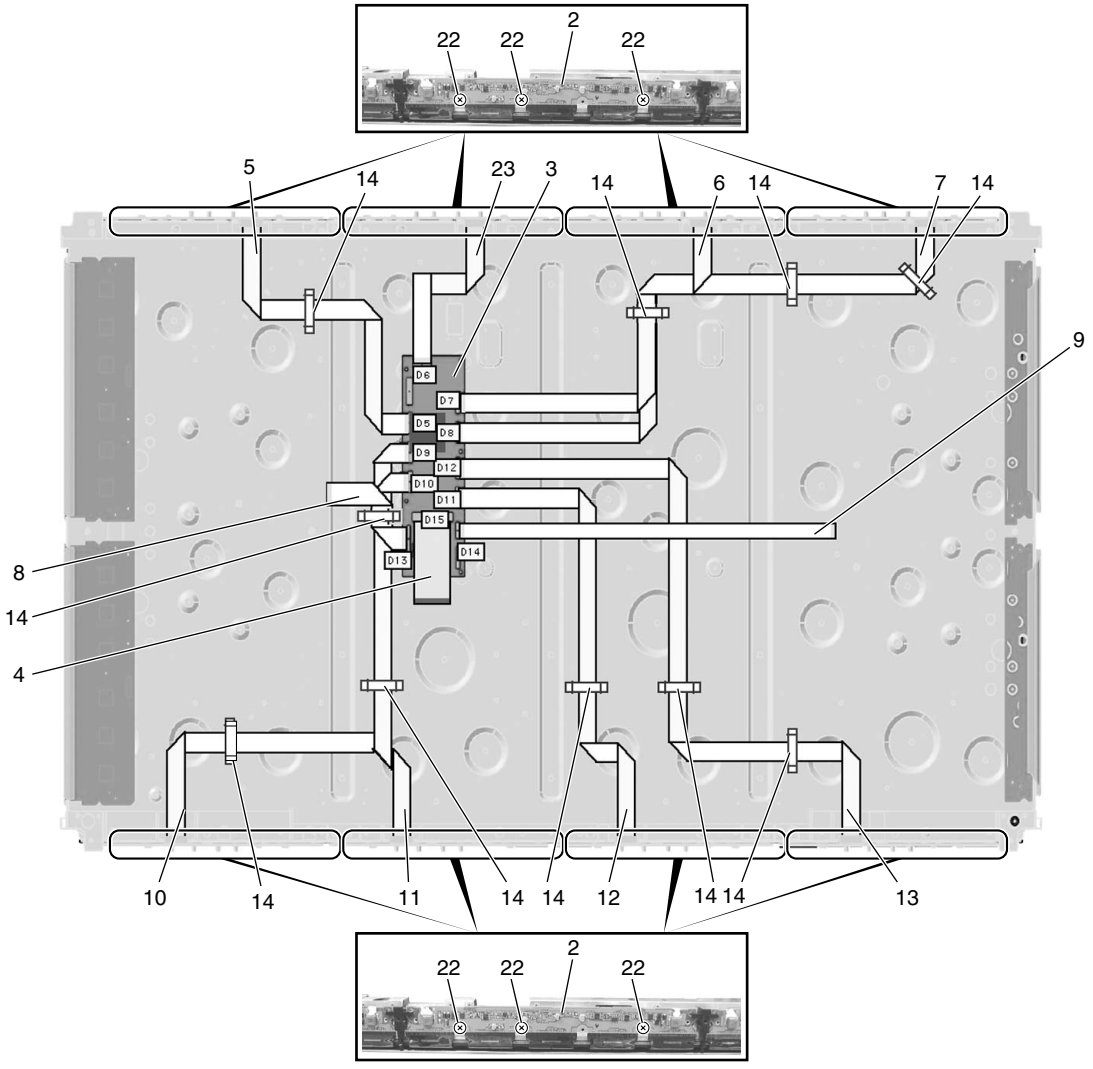
PDP-5004/KUC, PDP-5014/KUC, PDP-4304/KUC and PDP-4314/KUC are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-5004/ KUC	PDP-5014/ KUC	PDP-4304/ KUC	PDP-4314/ KUC
	2	Remote Control Unit	AXD1496	AXD1497	AXD1496	AXD1497
	15	Pad	AHA2280	AHA2280	Not used	Not used
	16	Pad (43U)	Not used	Not used	AHA2282	AHA2282
	17	Pad (43L)	Not used	Not used	AHA2283	AHA2283
	20	Under Carton	AHD3037	AHD3037	AHD3100	AHD3100
	21	Upper Carton	AHD3286	AHD3288	AHD3287	AHD3289

2.2 PDP-5004, PDP-5014 models

2.2.1 CHASSIS SECTION (1)

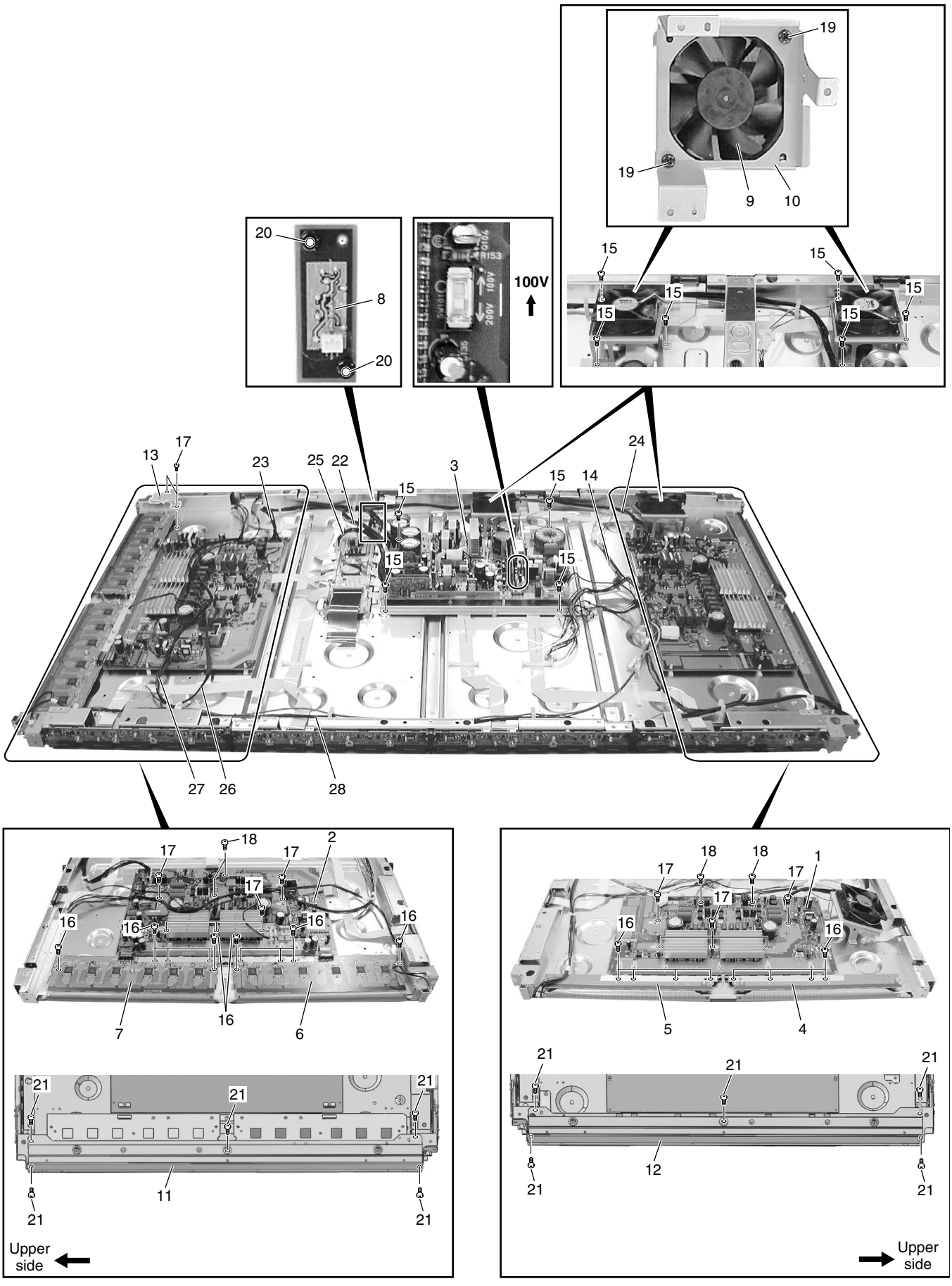




CHASSIS SECTION (1) parts List

Mark	No.	Description	Part No.
NSP	1	P. Chassis (50) Assy	AWU1099
NSP	2	50 ADDRESS Assy	AWZ6839
	3	DIGITAL VIDEO Assy	AWV2100
	4	FPC (114P)	ADY1081
	5	Flexible Cable (J201)	ADD1248
	6	Flexible Cable (J203)	ADD1250
	7	Flexible Cable (J204)	ADD1251
	8	Flexible Cable (J209)	ADD1236
	9	Flexible Cable (J210)	ADD1237
	10	Flexible Cable (J205)	ADD1252
	11	Flexible Cable (J206)	ADD1253
	12	Flexible Cable (J207)	ADD1254
	13	Flexible Cable (J208)	ADD1255
	14	Flat Clamp	AEC1879
	15	PCB Spacer	AEC1941
	16	PCB Support	AEC1938
	17	Wire Saddle	AEC1745
	18	PCB Spacer	AEC1947
	19	Locking Wire Saddle	AEC1948
	20	Drive Silicone Sheet C	AEH1066
	21	Drive Silicone Sheet B	AEH1065
	22	Screw	VBB30P080FNI
	23	Flexible Cable (J202)	ADD1249
	24	Locking Wire Saddle	AEC1992
	25	SCAN Silicone Sheet	AEH1080

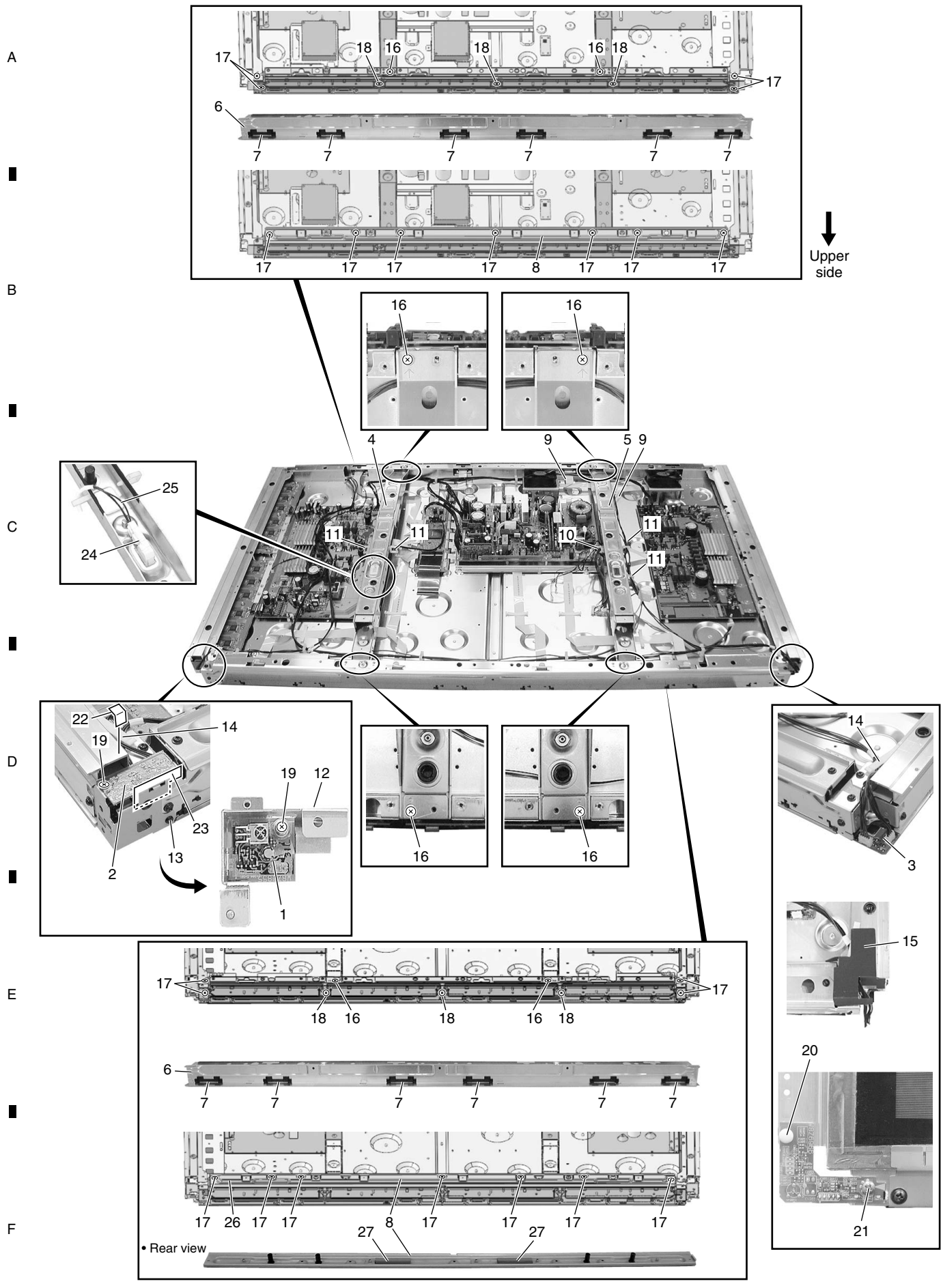
2.2.2 CHASSIS SECTION (2)



CHASSIS SECTION (2) parts List

Mark	No.	Description	Part No.
	1	50 X DRIVE Assy	AWZ6959
	2	50 Y DRIVE Assy	AWV2144
⚠	3	POWER SUPPLY Unit	AXY1083
NSP	4	X CONNECTOR B Assy	AWZ6812
NSP	5	X CONNECTOR A Assy	AWZ6811
NSP	6	50 SCAN A Assy	AWZ6809
NSP	7	50 SCAN B Assy	AWZ6810
	8	PANEL SENSOR Assy	AWZ6795
	9	Fan Motor (80 x 25)	AXM1044
	10	Fan Angle (504)	ANG2609
	11	Front Chassis VL (50M)	ANA1753
	12	Front Chassis VR (50M)	ANA1754
	13	SCAN Heatsink	ANH1630
	14	Housing Wire (J117)	ADX2897
	15	Screw	ABZ30P060FMC
	16	Screw	PMB30P060FNI
	17	Screw	VBB30P080FNI
	18	Screw	PMB40P080FZK
	19	Screw	PPZ50P100FZK
	20	Nylon Rivet	AEC1671
	21	Screw	AMZ30P060FZK
	22	3P Housing Wire (J109)	ADX2847
	23	11P Housing Wire (J102)	ADX2853
	24	12P Housing Wire (J103)	ADX2854
	25	Wire A (J101)	ADX2839
	26	WireD (J118)	ADX3030
	27	5P Housing Wire (J119)	ADX3031
	28	9P Housing Wire (J115)	ADX2895

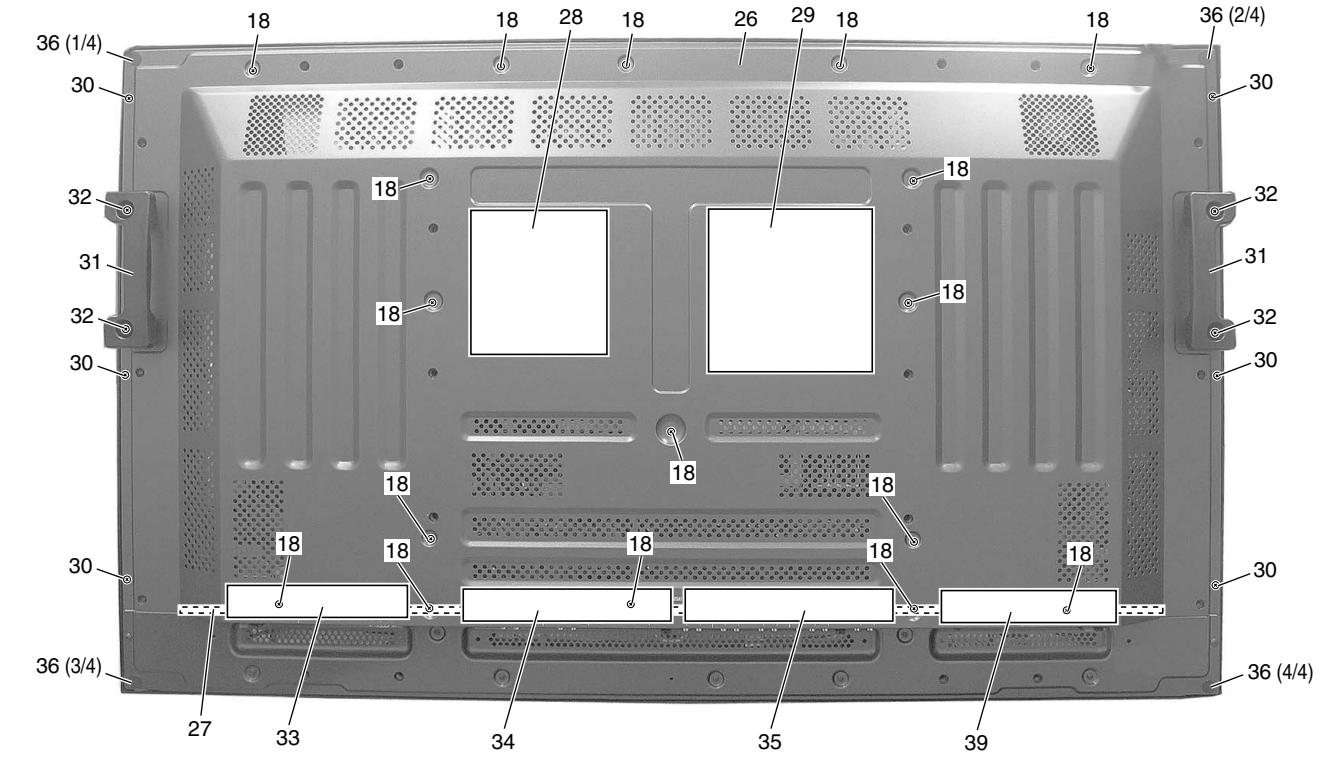
2.2.3 FRAME SECTION

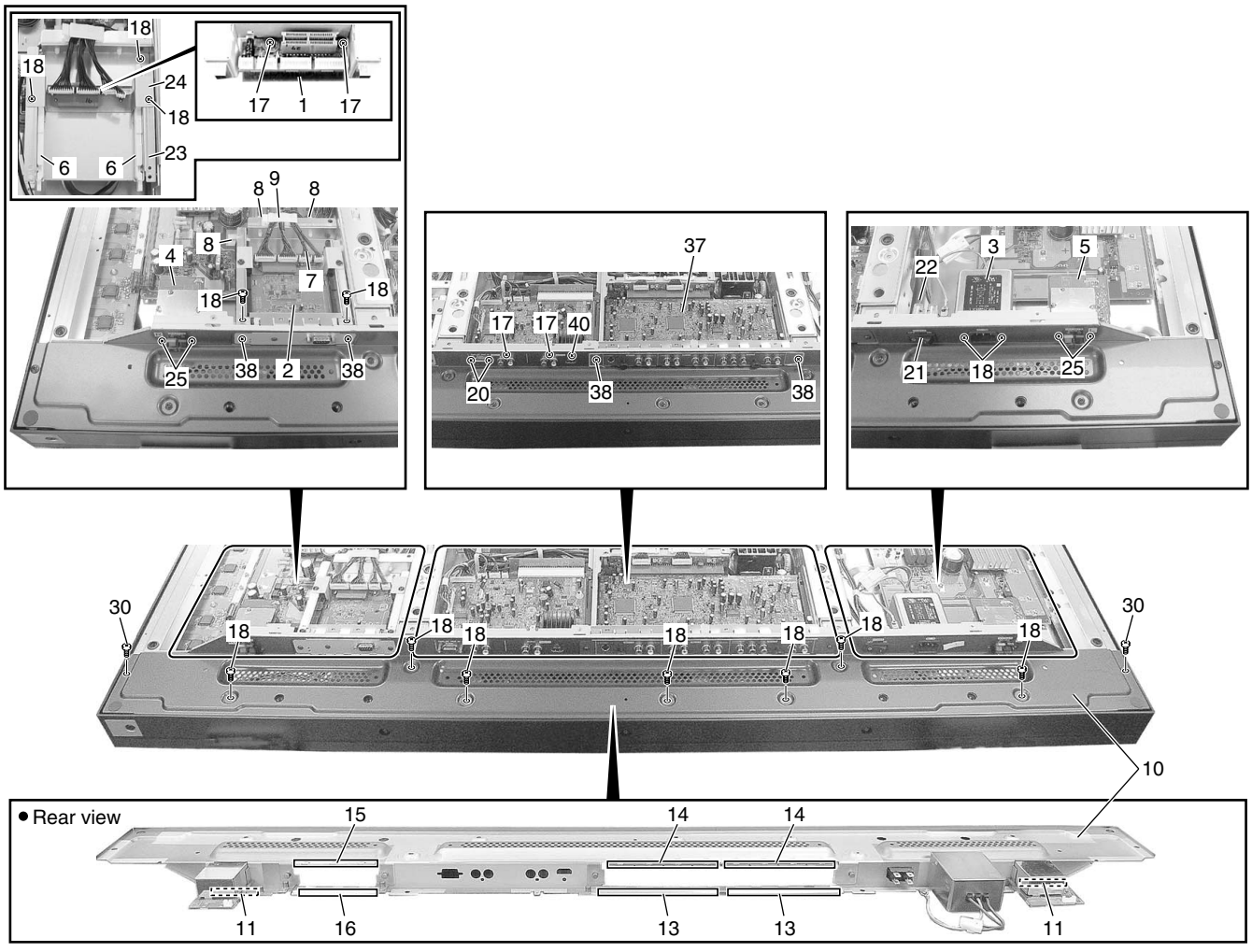


FRAME SECTION parts List

Mark	No.	Description	Part No.
	1	IR RECEIVE Assy	AWZ6855
	2	KEY CONTROL Assy	AWZ6969
	3	LED Assy	AWZ6966
	4	Sub Frame L Assy (50M)	ANG2596
	5	Sub Frame R Assy (50M)	ANG2598
	6	Front Chassis H (50)	ANA1733
	7	Front Spacer (CMX)	AMR3384
	8	Rear Frame (50M)	ANG2602
	9	Locking Wire Saddle	AEC1948
	10	Locking Wire Saddle	AEC1992
	11	Wire Saddle	AEC1745
NSP	12	IR Holder	ANG2551
	13	Nylon Rivet	AEC1671
	14	Flat Clamp	AEC1879
	15	Enclosure Sheet 1	AMR3405
	16	Screw	AMZ30P080FMC
	17	Screw	AMZ30P060FZK
	18	Screw	APZ30P080FZK
	19	Screw	ABZ30P060FMC
	20	Nylon Rivet	AEC1997
	21	Screw	BBZ30P050FMC
	22	Enclosure Sheet 2 (V)	AMR3411
	23	Enclosure Sheet 3	AMR3407
	24	Power Switch (S2)(TRAP)	ASG1089
	25	3P Housing Wire (J114)	ADX3032
	26	Gasket S (CM)	ANK1749
	27	Gasket (CM)	ANK1748

2.2.4 TERMINAL PANEL and REAR SECTION





TERMINAL PANEL and REAR SECTION parts List

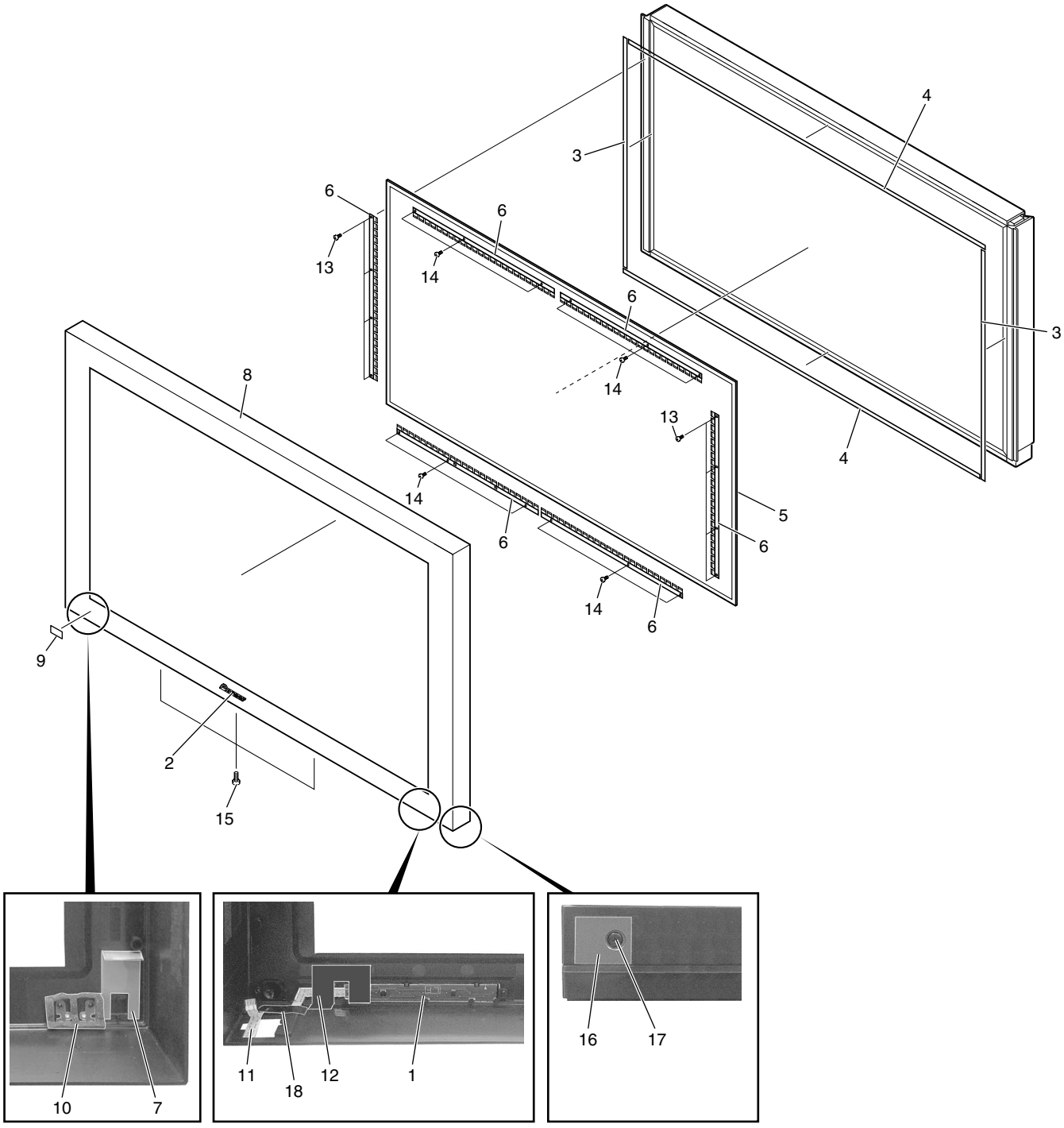
Mark	No.	Description	Part No.
	1	COMM SLOT I/F Assy	AWZ6964
	2	COMM SLOT Assy	AWZ6968
⚠	3	AC Inlet (CN1)	AKP1244
	4	SP TERMINAL R Assy	AWZ6857
	5	SP TERMINAL L Assy	AWZ6856
	6	Guide Rail EX	AEC1994
	7	6P Housing Wire (J108)	ADX3029
	8	Wire Saddle	AEC1745
	9	Clamp	AEC1884
	10	Terminal Panel (F50)	ANG2685
	11	Gasket SP-T	ANK1734
	12	•••••	
	13	Slot Spring B126	ABK1033
	14	Slot Spring T130	ABK1032
	15	Slot Spring T94	ABK1034
	16	Slot Spring B92	ABK1035
	17	Screw	VBB30P080FNI
	18	Screw	AMZ30P060FZK
	19	•••••	
	20	Hexagon Head Screw	BBA1051
⚠	21	Power Switch (S1)	ASG1094
	22	Housing Wire (MX)(J116)	ADX2896
	23	COMM Stay A	ANG2605
	24	COMM Stay B	ANG2606
	25	Screw	APZ30P080FZK
	26	Rear Case (50M)	ANE1623
	27	Gasket T-R50	ANK1735
NSP	28	Name Label	See Contrast table (2)
	29	Caution Label	AAX3048
	30	Screw	TBZ40P080FZK
	31	Grip	AMR3380
	32	Screw	HMB50P140FZK
	33	Terminal Label R (SF50C)	AAX3126
	34	Terminal Label C (SF50C)	AAX3130
	35	Terminal Label V (CM)	AAX3137
	36	Rear Corner Label (15)	AAX3081
	37	VIDEO SLOT 2 Assy	AWV2159
	38	Screw	ABA1300
	39	Terminal Label L (50M)	AAX3061
	40	Screw	BMZ30P080FZK

(2) CONTRAST TABLE

PDP-5004/KUC and PDP-5014/KUC are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-5004/ KUC	PDP-5014/ KUC
NSP	28	Name Label (SF50C)	AAL2593	Not used
NSP	28	Name Label (SF50S)	Not used	AAL2595

2.2.5 FRONT SECTION



FRONT SECTION parts List

Mark	No.	Description	Part No.
	1	FRONT KEY Assy	AWZ6970
	2	PIONEER Badge	AAM1091
	3	Panel Cushion V	AED1199
	4	Panel Cushion H	AED1226
⚠	5	Protect Panel Assy (50)	AMR3348
	6	Panel Holder (50)	ANG2563
	7	Earth Plate (MX)	AMR3432
	8	Front Case Assy	See Contrast table (2)
NSP	9	Energy Star Label	AAX8022
	10	Blind Cushion	AEB1400
	11	Flexible Cable (J211)	ADD1281
	12	Flexible Seal (P)	AEH1072
	13	Screw	ABZ30P060FMC
	14	Screw	APZ30P080FZK
	15	Screw	APZ30P120FZK
	16	Lead Cover	See Contrast table (2)
	17	Rivet	AEC1877
	18	Flexible Seal (SF)	AEH1082

(2) CONTRAST TABLE

PDP-5004/KUC and PDP-5014/KUC are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-5004/ KUC	PDP-5014/ KUC
	8	Front Case Assy (F50C)	AMB2843	Not used
	8	Front Case Assy (F50S)	Not used	AMB2844
	16	Lead Cover (SF)	AMR3436	Not used
	16	Lead Cover (4G)	Not used	AMR3395

2.2.6 PANEL CHASSIS (50) ASSY (AWU1099)

Panel Chassis (50) Assy (AWU1099)

• Parts List

Mark	No.	Description	Part No.
NSP		1..50 ADDRESS Assy	AWV2121
NSP		2..50 ADDRESS Assy	AWZ6839
NSP		1..50 SCAN FUKUGO Assy	AWV2036
NSP		2..50 SCAN A Assy	AWZ6809
NSP		2..50 SCAN B Assy	AWZ6810
NSP		2..X CONNECTOR A Assy	AWZ6811
NSP		2..X CONNECTOR B Assy	AWZ6812
NSP		Address Module (IC1-IC40)	AXF1124
NSP		Plasma Panel Assy (50")(V1)	AAV1251
NSP		FPC (50XGA-X)	ADY1084
NSP		FPC (50XGA-Y)	ADY1085
NSP		Chassis Assy (50)	ANA1774
		Edge Card Spacer	AEC1998
		PCB Spacer	AEC1944
		PCB Support	AEC1958
		Rivet	AMR1066
		FC Spacer	AMR3370
NSP		Adhesive	ZBA-KE3424S
NSP		Cleaner	ZLX-AP7
NSP		Tape	ZTA-8101-12
NSP		Double Faced Tape	ZTB-5015-18
NSP		Tape	ZTC-POLYCA-11
NSP		Tape	ZTC-POLYCA-20
NSP		Double Faced Tape	ZTB-5015-9
NSP		Tape	ZTC-900UL-15
NSP		Silicone Rubber	ZTX-HC20-15
NSP		Wiping Cloth	ZTX-MX100-13
NSP		Film	ZTX-2102Y35-2R5
NSP		Film	ZTX-2102Y45-5
NSP		Silicone Rubber	ZTX-HC50-15
NSP		Silicone Rubber	ZTC-EM7KBOR85T-15W

2.2.7 PDP SERVICE ASSY (AWU1108)

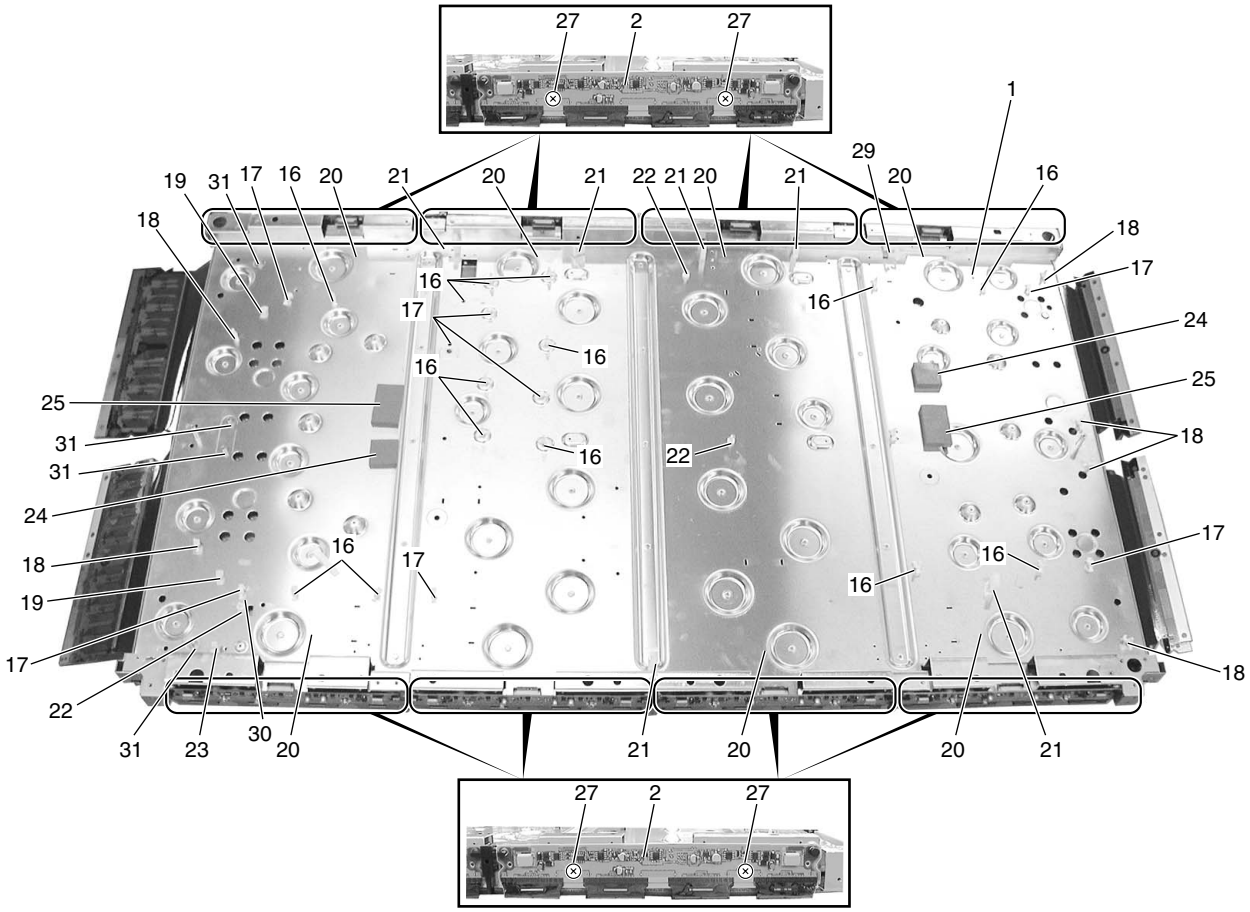
PDP SERVICE Assy (AWU1108)

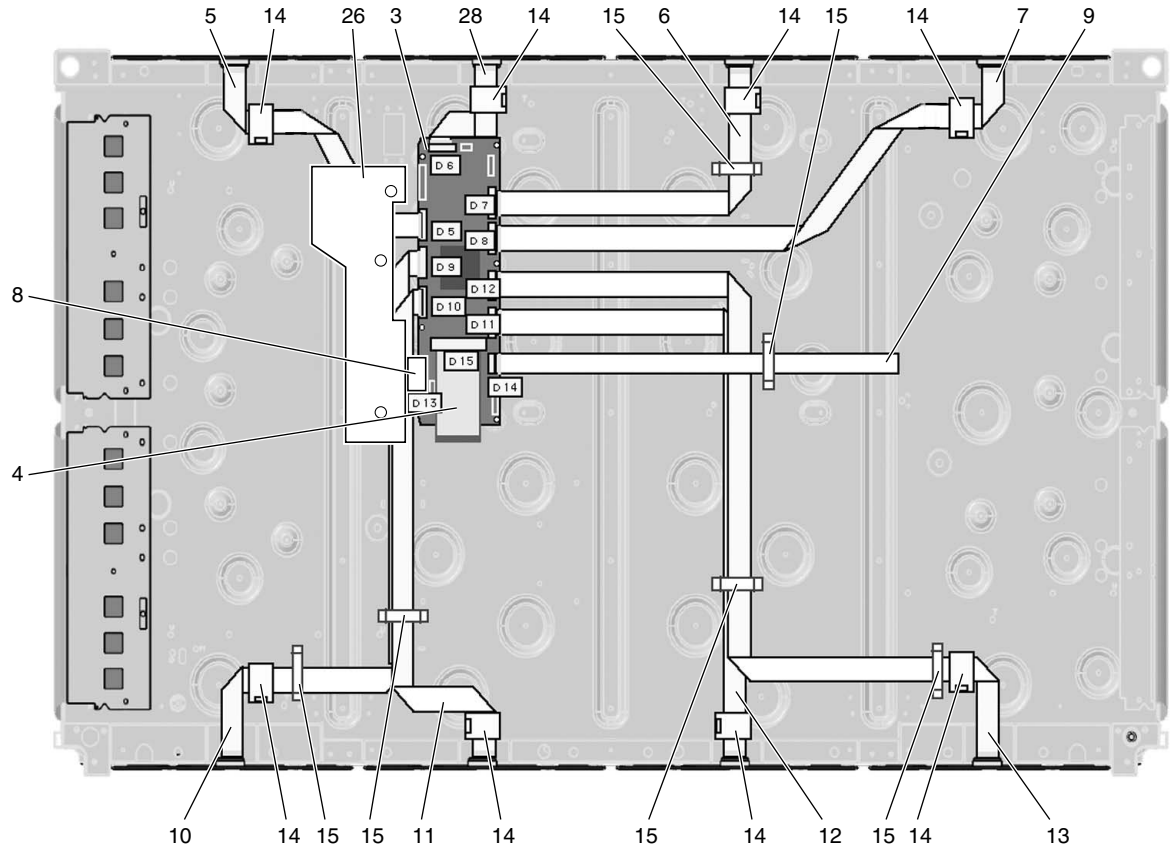
• Parts List

Mark	No.	Description	Part No.
NSP		P. Chassis (50) Assy	AWU1099
NSP		Front Chassis H (50)	ANA1733
		F. Chassis VL (50M)	ANA1765
		F. Chassis VR (50M)	ANA1766
		Sub Frame L Assy (50M)	ANG2638
		Sub Frame R Assy (50M)	ANG2561
		Scan Heatsink	ANH1630
		Spacer	AEB1397
		Wire Saddle	AEC1745
		Clamp	AEC1884
		PCB Support	AEC1938
		PCB Spacer	AEC1941
		PCB Spacer	AEC1947
		Wire Clip	AEC1948
		Wire Clip	AEC1992
		Panel Cushion V	AED1199
		Panel Cushion H	AED1226
		Siricon Sheet SC	AEH1080
		Front Spacer	AMR3369
		Caution Label	AAX3031
NSP		Drive Voltage Label	ARW1097
		Screw	ABZ30P100FZK
		Screw	AMZ30P060FZK
		Screw	AMZ30P080FMC
		Screw	APZ30P080FZK
NSP		Front Case (504 SVC)	AMB2811
		Rear Case (50P)	ARM1247
		Caution Card (SVC)	AHA2280
		Pad (PP T-L)	AHA2315
		Pad (PP T-R)	AHA2316
		Center Pad (50)	AHA2335
		Pad (PP B-L)	AHA2343
		Pad (PP B-R)	AHA2344
		Sub Carton	AHB1248
		Carton (50)	AHD3177
NSP		Upper Carton (504SVC)	AHD3212
		Protect Sheet	AHG1331

2.3 PDP-4304, PDP-4314 models

2.3.1 CHASSIS SECTION (1)

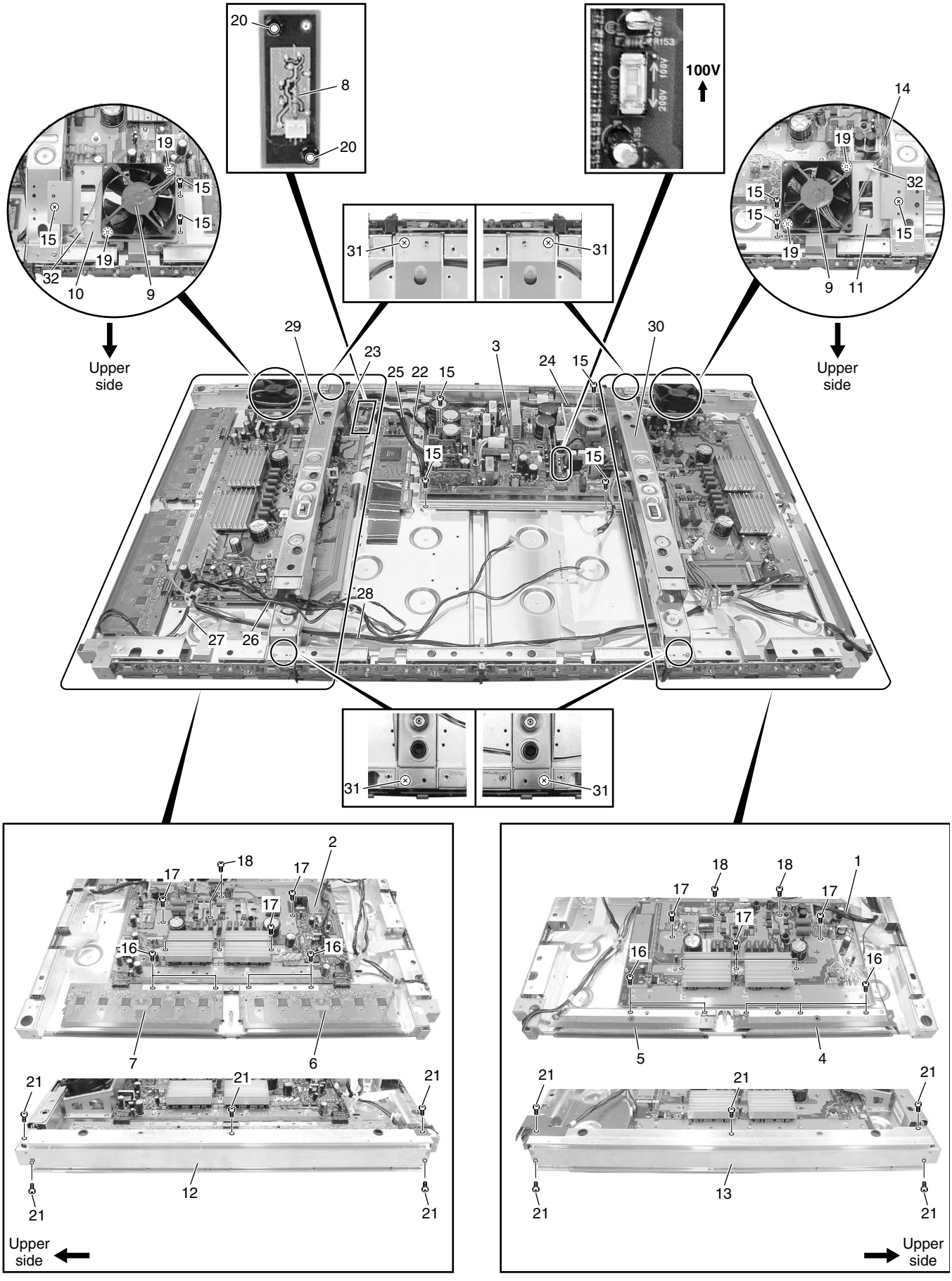




CHASSIS SECTION (1) parts List

Mark	No.	Description	Part No.
NSP	1	P. Chassis (43) Assy	AWU1098
NSP	2	43 ADDRESS Assy	AWZ6793
	3	DIGITAL VIDEO Assy	AWV2100
	4	FPC (114P)	ADY1081
	5	Flexible Cable (J201)	ADD1257
	6	Flexible Cable (J203)	ADD1259
	7	Flexible Cable (J204)	ADD1260
	8	Flexible Cable (J209)	ADD1223
	9	Flexible Cable (J210)	ADD1224
	10	Flexible Cable (J205)	ADD1261
	11	Flexible Cable (J206)	ADD1262
	12	Flexible Cable (J207)	ADD1263
	13	Flexible Cable (J208)	ADD1264
	14	Ferrite Core	ATX1048
	15	Flat Clamp	AEC1879
	16	PCB Spacer	AEC1941
	17	PCB Support	AEC1938
	18	PCB Spacer	AEC1944
	19	PCB Support	AEC1958
	20	Ferrite Clamp	AEC1986
	21	Wire Saddle	AEC1745
	22	PCB Spacer	AEC1947
	23	Locking Wire Saddle	AEC1948
	24	Drive Silicone Sheet C	AEH1066
	25	Drive Silicone Sheet B	AEH1065
	26	Y Drive Protection Sheet	AMR3346
	27	Screw	VBB30P080FNI
	28	Flexible Cable (J202)	ADD1258
	29	Locking Wire Saddle	AEC1992
	30	Harness Lifter 18	AEC1980
	31	Edge Card Spacer	AEC1998

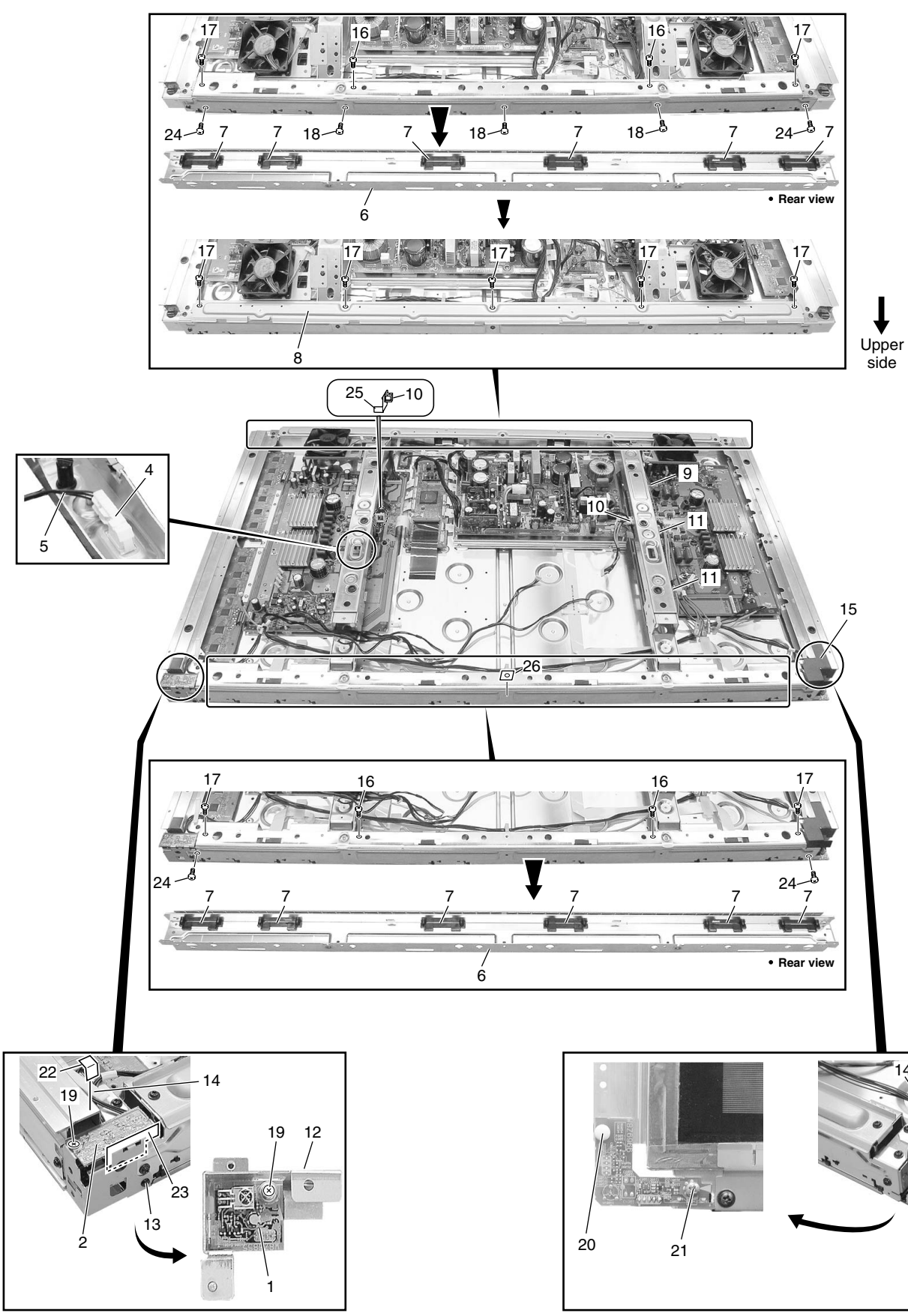
2.3.2 CHASSIS SECTION (2)



CHASSIS SECTION (2) parts List

Mark	No.	Description	Part No.
	1	43 X DRIVE Assy	AWZ6840
	2	43 Y DRIVE Assy	AWV2022
⚠	3	POWER SUPPLY Unit	AXY1083
NSP	4	X CONNECTOR B Assy	AWZ6799
NSP	5	X CONNECTOR A Assy	AWZ6798
NSP	6	43 SCAN A Assy	AWZ6796
NSP	7	43 SCAN B Assy	AWZ6797
	8	PANEL SENSOR Assy	AWZ6795
⚠	9	Fan Motor (80 x 25)	AXM1044
	10	Fan Angle L (43M)	ANG2655
	11	Fan Angle R (43M)	ANG2656
	12	Front Chassis VL (43M)	ANA1755
	13	Front Chassis VR (43M)	ANA1756
	14	Housing Wire for Fan (J117)	ADX2904
	15	Screw	ABZ30P060FMC
	16	Screw	PMB30P060FNI
	17	Screw	VBB30P080FNI
	18	Screw	PMB40P080FZK
	19	Screw	PPZ50P100FZK
	20	Nyron Rivet	AEC1671
	21	Screw	AMZ30P060FZK
	22	3P Housing Wire (J109)	ADX2847
	23	11P Housing Wire (J102)	ADX2840
	24	12P Housing Wire (J103)	ADX2841
	25	Wire A (J101)	ADX2839
	26	Wire G (J118)	ADX3034
	27	5P Housing Wire (J119)	ADX3035
	28	9P Housing Wire (J115)	ADX2902
	29	Sub Frame L Assy (43M)	ANG2623
	30	Sub Frame R Assy (43M)	ANG2625
	31	Screw	AMZ30P080FMC
	32	Locking Wire Saddle	AEC1948

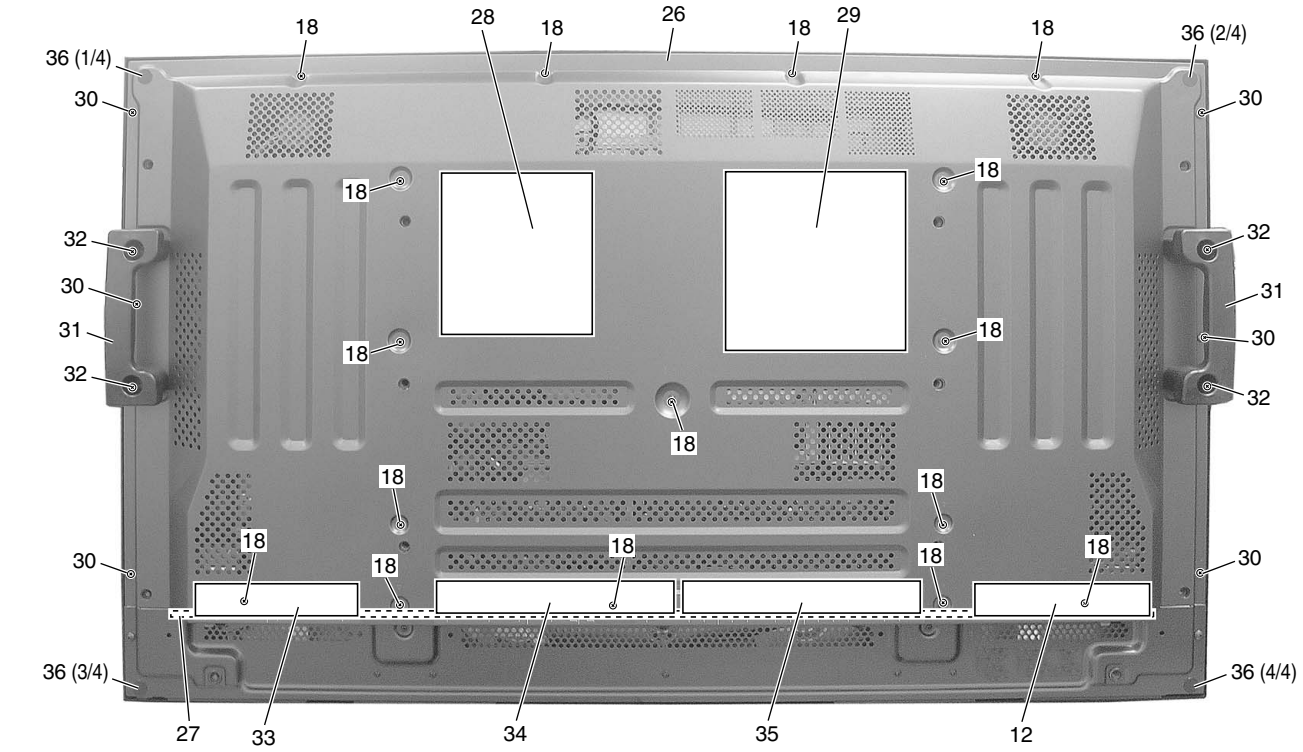
2.3.3 FRAME SECTION

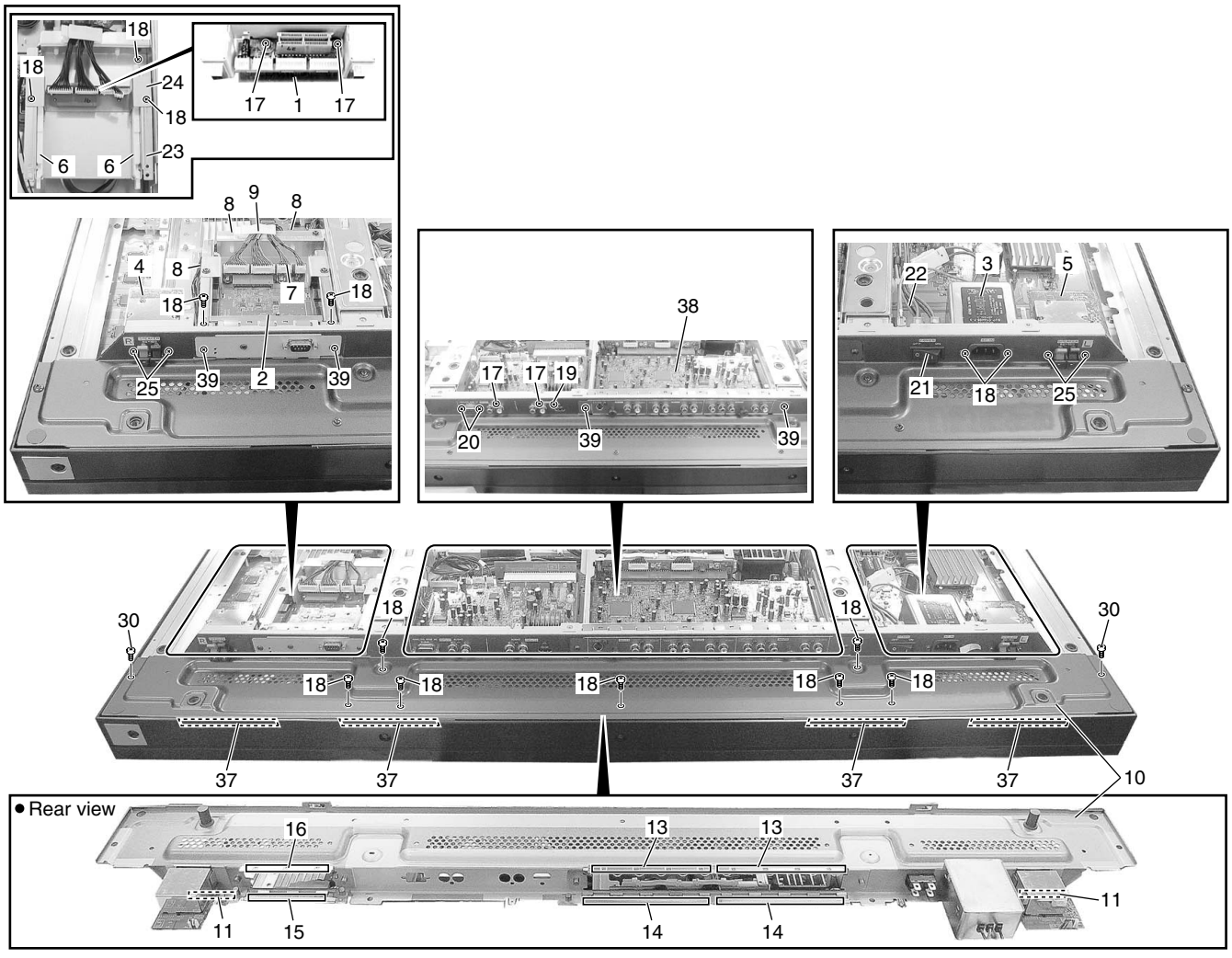


FRAME SECTION parts List

Mark	No.	Description	Part No.
	1	IR RECEIVE Assy	AWZ6855
	2	KEY CONTROL Assy	AWZ6969
	3	LED Assy	AWZ6966
	4	Power Switch (S2)(TRAP)	ASG1089
	5	3P Housing Wire (J114)	ADX3036
	6	Front Chassis H (43)	ANA1714
	7	Front Spacer (CMX)	AMR3384
	8	Rear Frame (43M)	ANG2613
	9	Locking Wire Saddle	AEC1948
	10	Locking Wire Saddle	AEC1992
	11	Wire Saddle	AEC1745
NSP	12	IR Holder	ANG2551
	13	Nyron Rivet	AEC1671
	14	Flat Clamp	AEC1879
	15	Enclosure Sheet 1	AMR3405
	16	Screw	AMZ30P080FMC
	17	Screw	AMZ30P060FZK
	18	Screw	APZ30P080FZK
	19	Screw	ABZ30P060FMC
	20	Nyron Rivet	AEC1997
	21	Screw	BBZ30P050FMC
	22	Enclosure Sheet 2 (V)	AMR3411
	23	Enclosure Sheet 3	AMR3407
	24	Screw	PMB30P060FNI
	25	Cable Cover	AMR3431
NSP	26	Front Case Spacer	AMR3430

2.3.4 TERMINAL PANEL and REAR SECTION





TERMINAL PANEL and REAR SECTION parts List

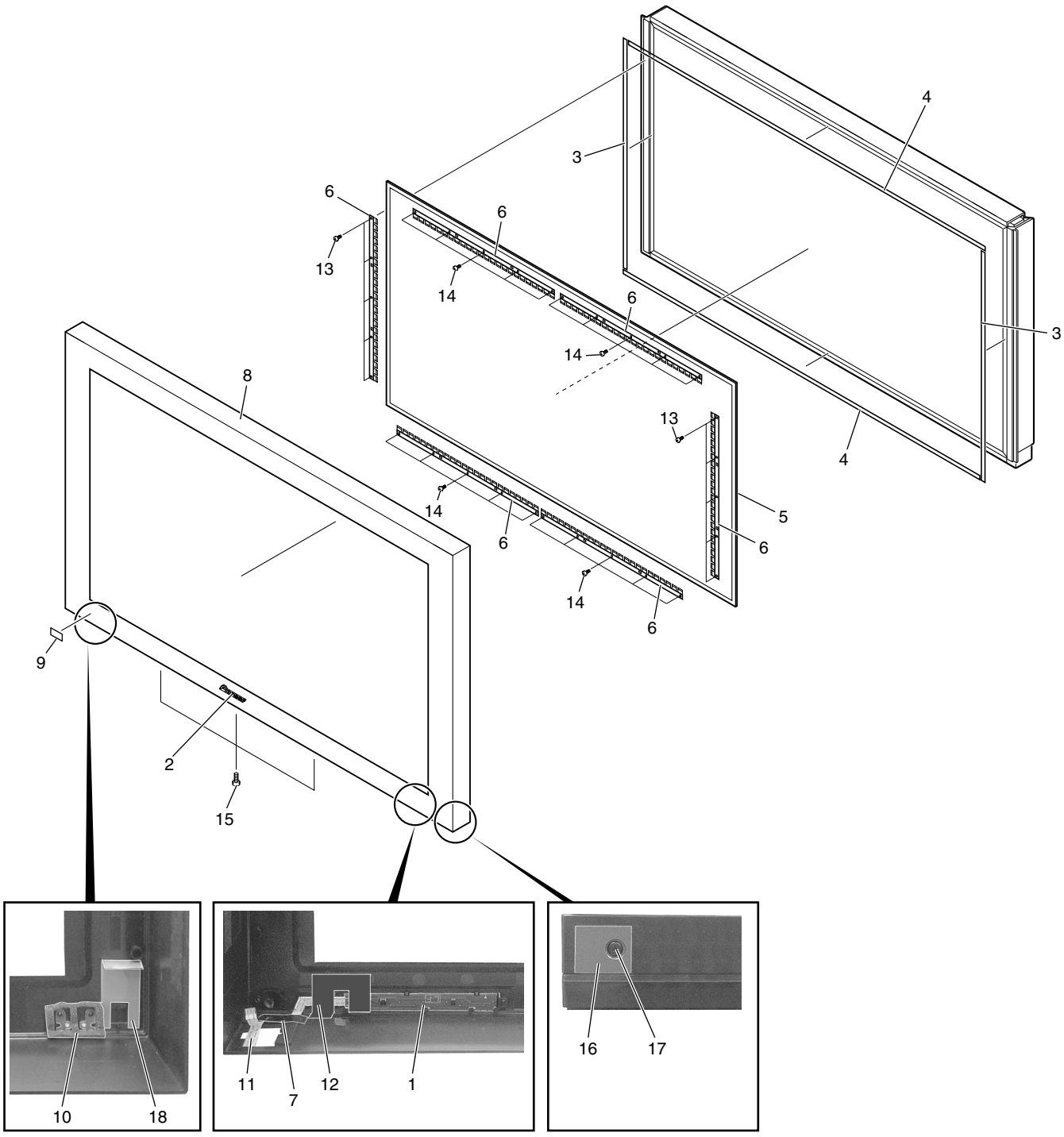
Mark	No.	Description	Part No.
	1	COMM SLOT I/F Assy	AWZ6964
	2	COMM SLOT Assy	AWZ6968
⚠	3	AC Inlet (CN1)	AKP1244
	4	SP TERMINAL R Assy	AWZ6857
	5	SP TERMINAL L Assy	AWZ6856
	6	Guide Rail EX	AEC1994
	7	6P Housing Wire (J108)	ADX3033
	8	Wire Saddle	AEC1745
	9	Clamp	AEC1884
	10	Terminal Panel (F43)	ANG2687
	11	Gasket SP-T	ANK1734
	12	Terminal Label L (43M)	AAX3062
	13	Slot Spring B126	ABK1033
	14	Slot Spring T130	ABK1032
	15	Slot Spring T94	ABK1034
	16	Slot Spring B92	ABK1035
	17	Screw	VBB30P080FNI
	18	Screw	AMZ30P060FZK
	19	Screw	BMZ30P080FZK
	20	Hexagon Head Screw	BBA1051
⚠	21	Power Switch (S1)	ASG1094
	22	Housing Wire (MX)(J116)	ADX2896
	23	COMM Stay A	ANG2605
	24	COMM Stay B	ANG2606
	25	Screw	APZ30P080FZK
	26	Rear Case (43M)	ANE1624
	27	Gasket T-R43	ANK1736
NSP	28	Name Label	See Contrast table (2)
	29	Caution Label (M)	AAX3048
	30	Screw	TBZ40P080FZK
	31	Grip	AMR3380
	32	Screw	HMB50P140FZK
	33	Terminal Label R (SF43C)	AAX3128
	34	Terminal Label C (SF43C)	AAX3130
	35	Terminal Label V (CM)	AAX3137
	36	Rear Corner Label (15)	AAX3081
	37	Spacer	AMR3433
	38	VIDEO SLOT 2 Assy	AWV2159
	39	Screw	ABA1300

(2) CONTRAST TABLE

PDP-4304/KUC and PDP-4314/KUC are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-4304/ KUC	PDP-4314/ KUC
NSP	28	Name Label (SF43C)	AAL2594	Not used
NSP	28	Name Label (SF43S)	Not used	AAL2596

2.3.5 FRONT SECTION



FRONT SECTION (1) parts List

Mark	No.	Description	Part No.
	1	FRONT KEY Assy	AWZ6970
	2	Pioneer Name Plate	AAM1091
	3	Panel Cushion V (43M)	AED1254
	4	Panel Cushion H (43M)	AED1253
⚠	5	Protect Panel Assy (43)	AMR3345
NSP	6	Panel Holder (43)	ANG2552
	7	Flexible Seal (SF)	AEH1082
	8	Front Case Assy	See Contrast table (2)
	9	Energy Star Label	AAX8022
	10	Blind Cushion	AEB1400
	11	Flexible Cable (J211)	ADD1281
	12	Flexible Seal (P)	AEH1072
	13	Screw	ABZ30P060FMC
	14	Screw	APZ30P080FZK
	15	Screw	APZ30P120FZK
	16	Lead Cover	See Contrast table (2)
	17	Rivet	AEC1877
	18	Earth Plate (MX)	AMR3432

(2) CONTRAST TABLE

PDP-4304/KUC and PDP-4314/KUC are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-4304/ KUC	PDP-4314/ KUC
	8	Front Case Assy (F43C)	AMB2846	Not used
	8	Front Case Assy (F43S)	Not used	AMB2847
	16	Lead Cover (SF)	AMR3436	Not used
	16	Lead Cover (4G)	Not used	AMR3395

2.3.6 PANEL CHASSIS (43) ASSY (AWU1098)

Panel Chassis (43) Assy (AWU1098)

• Parts List

Mark	No.	Description	Part No.
NSP		1..43 ADDRESS Assy	AWV2120
NSP		2..43 ADDRESS Assy	AWZ6793
NSP		1..43 SCAN FUKUGO Assy	AWV2023
NSP		2..43 SCAN A Assy	AWZ6796
NSP		2..43 SCAN B Assy	AWZ6797
NSP		2..X CONNECTOR A Assy	AWZ6798
NSP		2..X CONNECTOR B Assy	AWZ6799
NSP		Address Module (IC1-IC32)	AXF1124
NSP		Plasma Panel Assy (43")(V1)	AAV1250
NSP		FPC (43XGA-X)	ADY1079
NSP		FPC (43XGA-Y)	ADY1080
NSP		Chassis Assy (43)	ANA1773
		PCB Spacer	AEC1944
		PCB Support	AEC1958
		Edge Card Spacer	AEC1998
		Rivet	AMR1066
		FC Spacer	AMR3370
NSP		Adhesive	ZBA-KE3424S
NSP		Cleaner	ZLX-AP7
NSP		Tape	ZTA-8101-12
NSP		Double Faced Tape	ZTB-5015-18
NSP		Double Faced Tape	ZTB-5015-9
NSP		Tape	ZTC-POLYCA-11
NSP		Tape	ZTC-POLYCA-20
NSP		Tape	ZTC-900UL-15
NSP		Wiping Cloth	ZTX-MX100-13
NSP		Film	ZTX-2102Y35-2R5
NSP		Film	ZTX-2102Y45-2R5
NSP		Film	ZTX-2102Y45-5
NSP		Silicone Rubber	ZTC-EM7KB0R85T-15W
NSP		Silicone Rubber	ZTX-HC50-15
NSP		Silicone Rubber	ZTX-HC20-15

2.3.7 PDP SERVICE ASSY (AWU1109)

PDP SERVICE Assy (AWU1109)

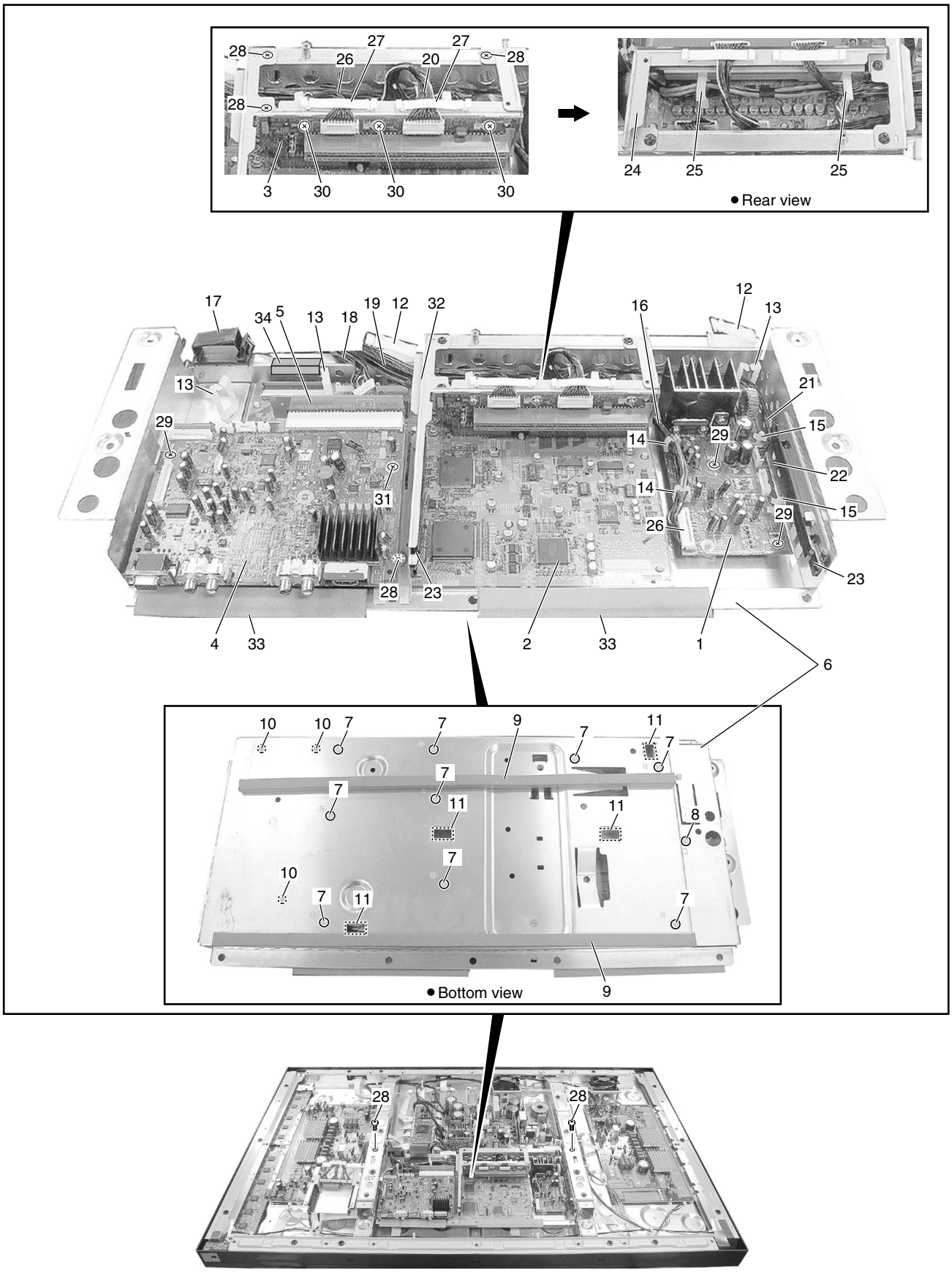
• Parts List

Mark	No.	Description	Part No.
NSP		P. Chassis (43) Assy	AWU1098
NSP		Front Chassis H (43)	ANA1714
		F Chassis VL (43M)	ANA1762
		F Chassis VR (43M)	ANA1763
		Sub Frame L Assy (43M)	ANG2545
		Sub Frame R Assy (43M)	ANG2548
		Spacer	AEB1397
		Edging Saddle	AEC1737
		Wire Saddle	AEC1745
		Clamp	AEC1884
		PCB Support	AEC1938
		PCB Spacer	AEC1941
		PCB Spacer	AEC1947
		Locking Wire Saddle	AEC1948
		HL18	AEC1980
		Ferrite Clamp	AEC1986
		Locking Wire Saddle	AEC1992
		Panel Cushion H (43M)	AED1253
		Panel Cushion V (43M)	AED1254
		Y Drive Protection Sheet	AMR3346
		Front Spacer	AMR3369
		Caution Label	AAX3031
NSP		Drive Voltage Label	ARW1097
		Screw	ABZ30P100FZK
		Screw	AMZ30P060FZK
		Screw	AMZ30P080FMC
		Screw	APZ30P080FZK
		Screw	VBB30P080FNI
NSP		Front Case (434 SVC)	AMB2810
		Rear Case (43P)	ANE1612
NSP		Exchange Panel Sheet	ARM1250
		Pad (PP T-L)	AHA2315
		Pad (PP T-R)	AHA2316
		Center Pad (43)	AHA2336
		Pad (PP B-L)	AHA2343
		Pad (PP B-R)	AHA2344
		Carton (43PU)	AHD3193
		Upper Carton (434S)	AHD3204
		Protect Sheet	AHG1331

2.4 MULTI BASE SECTION for PDP-5004, PDP-5014, PDP-4304 and PDP-4314

2.4.1 MULTI BASE SECTION

Note : This illustration is PDP-5004.



MULTI BASE SECTION parts List

Mark	No.	Description	Part No.
	1	AUDIO AMP Assy	AWZ6848
	2	RGB Assy	AWZ6961
	3	VIDEO SLOT I/F Assy	AWZ6851
	4	AV I/O Assy	See Contrast table (2)
	5	AV I/O I/F Assy	AWZ6859
	6	Multi Base (CMX)	ANA1757
	7	PCB Holder	AEC1088
	8	PCB Spacer	AEC1991
	9	Gasket C-M	ANK1737
	10	Locking Card Spacer	AEC1429
	11	Ground Finger	ANG2468
	12	Clamp	AEC1884
	13	Wire Saddle	AEC1989
	14	Mini Clamp	AEC1971
	15	Double Locking Spacer	AEC1988
	16	15P/16P Housing Wire (J106)	ADX3028
	17	Cable Clamp	AEC1707
	18	10/11P Housing Wire (J110)	See Contrast table (2)
	19	10P Housing Wire (J113)	ADX2908
	20	12P Housing Wire (J112)	ADX2892
	21	13P/6P Housing Wire (J104)	ADX2910
	22	COVER Assy	AWZ6858
	23	Guide Rail EX	AEC1994
	24	Slot Stay	ANG2608
	25	Wire Saddle	AEC1745
	26	11P Housing Wire (J111)	See Contrast table (2)
	27	Flat Clamp	AEC1879
	28	Screw	AMZ30P060FZK
	29	Screw	PMB30P060FNI
	30	Screw	VBB30P080FNI
	31	Pin Grommet	AEC1015
	32	Video Stay	ANG2607
	33	Gasket M-T 150	ANK1738
	34	Shield Sheet	AEC2004

(2) CONTRAST TABLE

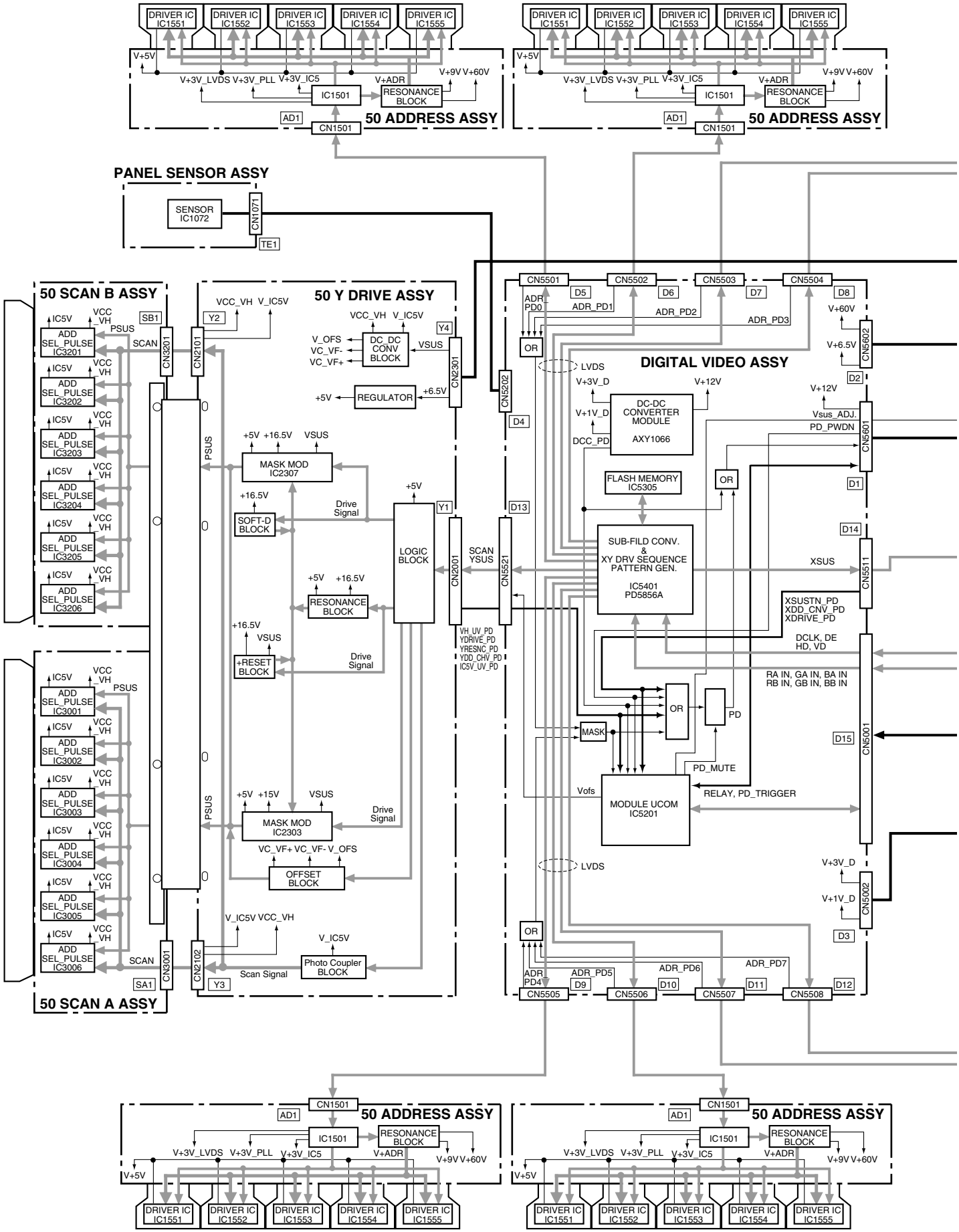
PDP-5004/KUC, PDP-5014/KUC, PDP-4304/KUC and PDP-4314/KUC are constructed the same except for the following:

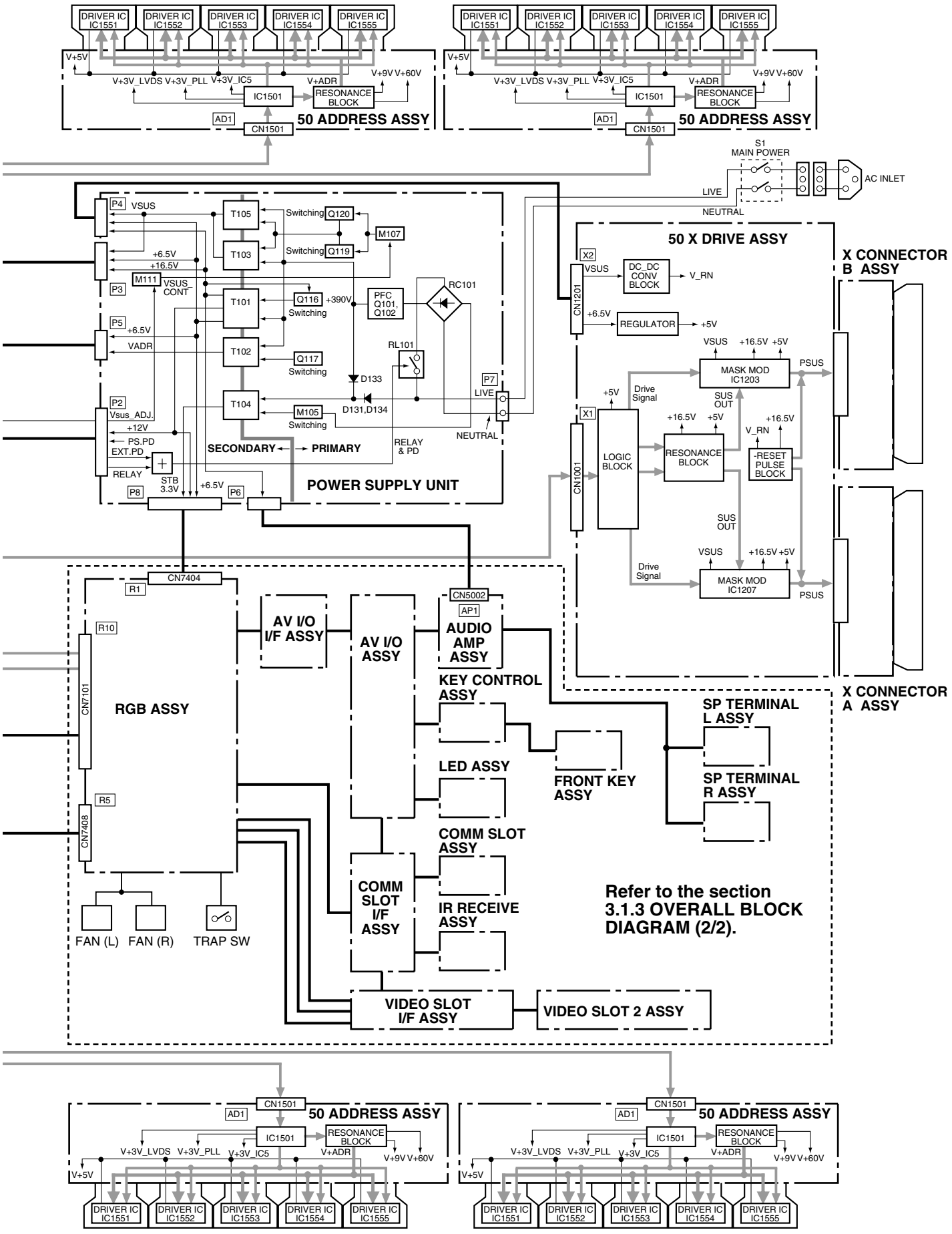
Mark	No.	Symbol and Description	PDP-5004/ KUC	PDP-5014/ KUC	PDP-4304/ KUC	PDP-4314/ KUC
	4	AV I/O Assy	AWZ6967	AWZ6971	AWZ6967	AWZ6971
	18	10/11P Housing Wire (J110)	ADX2890	ADX2890	ADX2912	ADX2912
	26	11P Housing Wire (J111)	ADX2891	ADX2891	ADX2913	ADX2913

3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

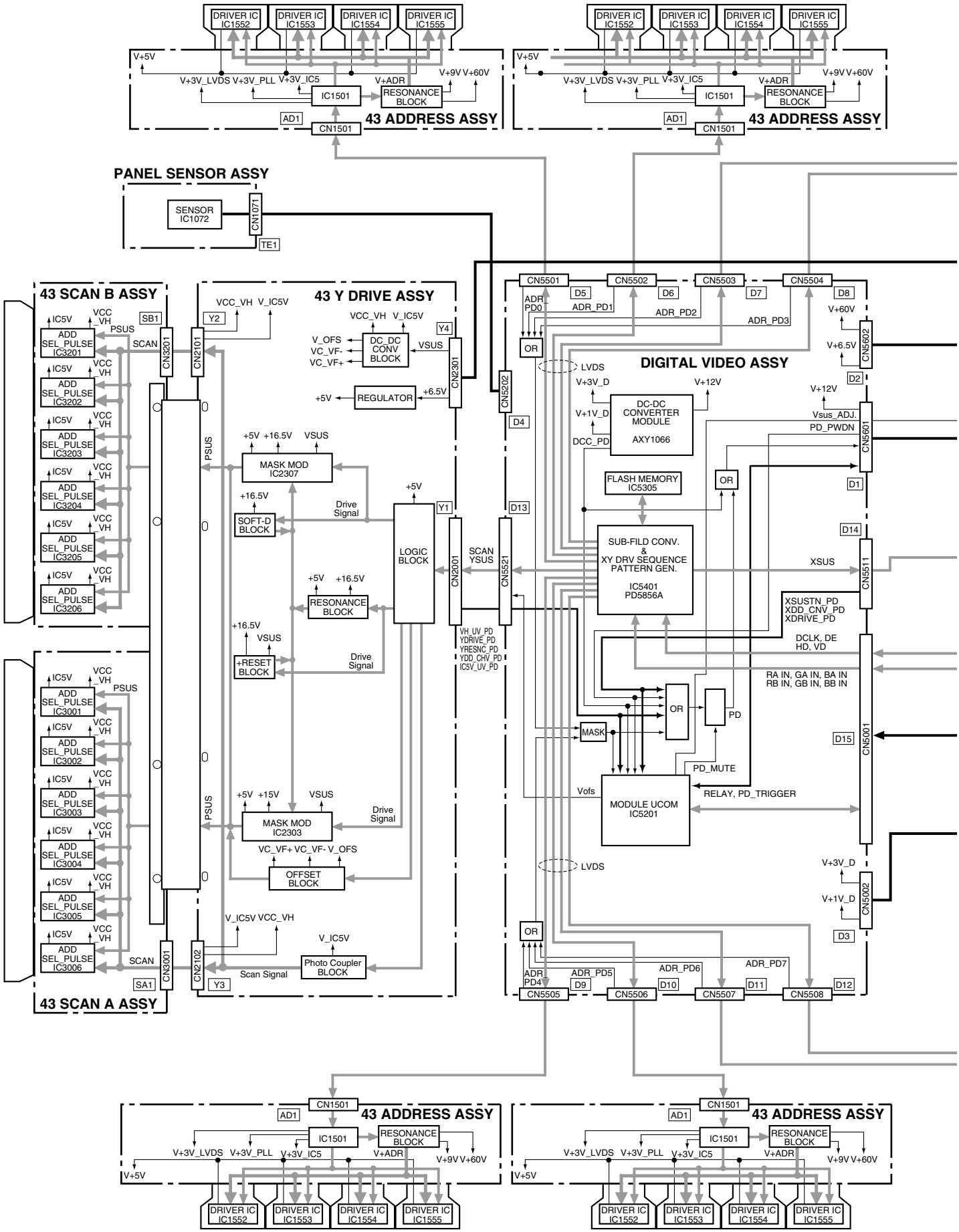
3.1 BLOCK DIAGRAM

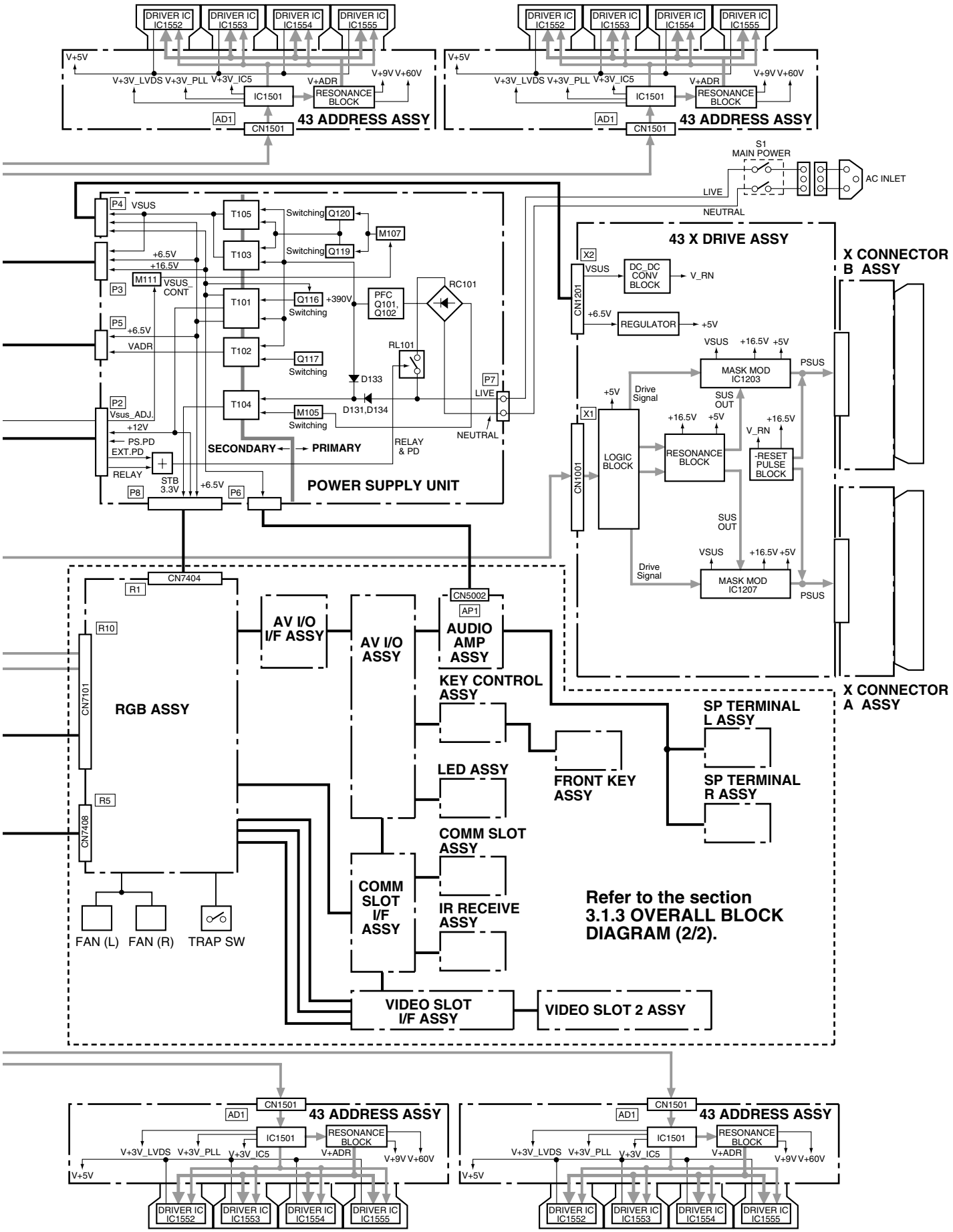
3.1.1 OVERALL BLOCK DIAGRAM (1/2) for PDP-5004 and PDP-5014 models



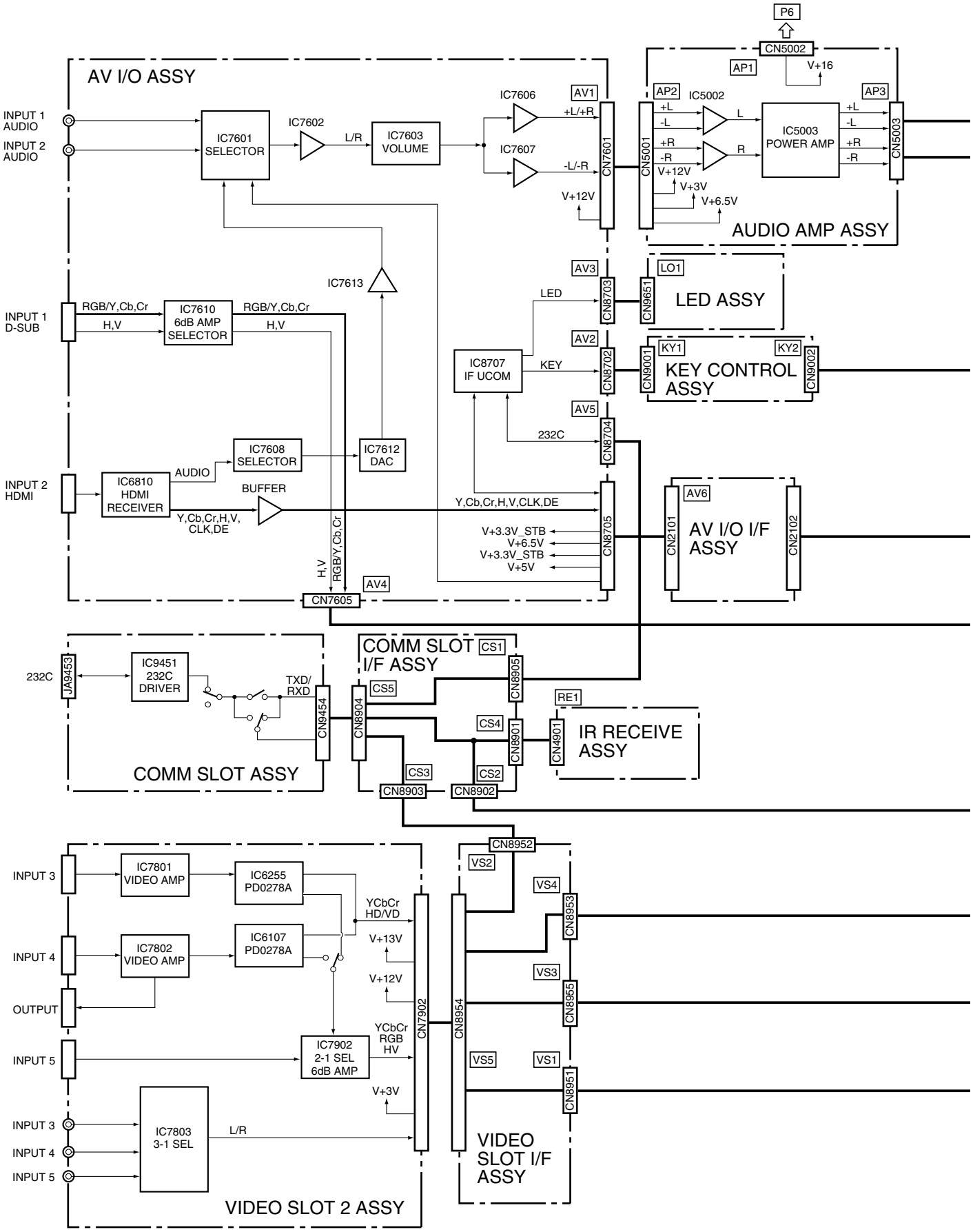

DRIVER IC IC1551
DRIVER IC IC1552
DRIVER IC IC1553
DRIVER IC IC1554
DRIVER IC IC1555
V+5V
V+3V_LVDS V+3V_PLL V+3V_IC5
V+ADR
V+9V V+60V
IC1501
RESONANCE BLOCK
AD1
CN1501
50 ADDRESS ASSY
S1
MAIN POWER
LIVE
NEUTRAL
AC INLET
P4 VSUS
T105
Switching Q120
M107
T103
Switching Q119
+6.5V
+16.5V
M111 VSUS CONT
P3
T101
Q116 +390V Switching
PFC Q101, Q102
RC101
P5 +6.5V
VADR
T102
Q117 Switching
RL101
D133
P7
LIVE
P2 Vsus_ADJ.
+12V
PS.PD
EXT.PD
RELAY
T104
M105 Switching
D131,D134
NEUTRAL
SECONDARY
PRIMARY
RELAY & PD
STB 3.3V
+6.5V
P8
P6
POWER SUPPLY UNIT
50 X DRIVE ASSY
X2
VSUS
DC_DC CONV BLOCK
V_RN
CN1201
+6.5V
REGULATOR
+5V
VSUS +16.5V +5V
MASK MOD IC1203
PSUS
+5V
Drive Signal
SUS OUT
X1
+16.5V +5V
RESONANCE BLOCK
+16.5V
V_RN
-RESET PULSE BLOCK
CN1001
LOGIC BLOCK
SUS OUT
VSUS +16.5V +5V
Drive Signal
MASK MOD IC1207
PSUS
X CONNECTOR B ASSY
X CONNECTOR A ASSY
CN7404
R1
R10
CN7101
RGB ASSY
R5
CN7408
AV I/O I/F ASSY
AV I/O ASSY
CN5002
AP1
AUDIO AMP ASSY
KEY CONTROL ASSY
LED ASSY
FRONT KEY ASSY
SP TERMINAL L ASSY
SP TERMINAL R ASSY
COMM SLOT ASSY
COMM SLOT I/F ASSY
IR RECEIVE ASSY
FAN (L)
FAN (R)
TRAP SW
VIDEO SLOT I/F ASSY
VIDEO SLOT 2 ASSY
Refer to the section 3.1.3 OVERALL BLOCK DIAGRAM (2/2).

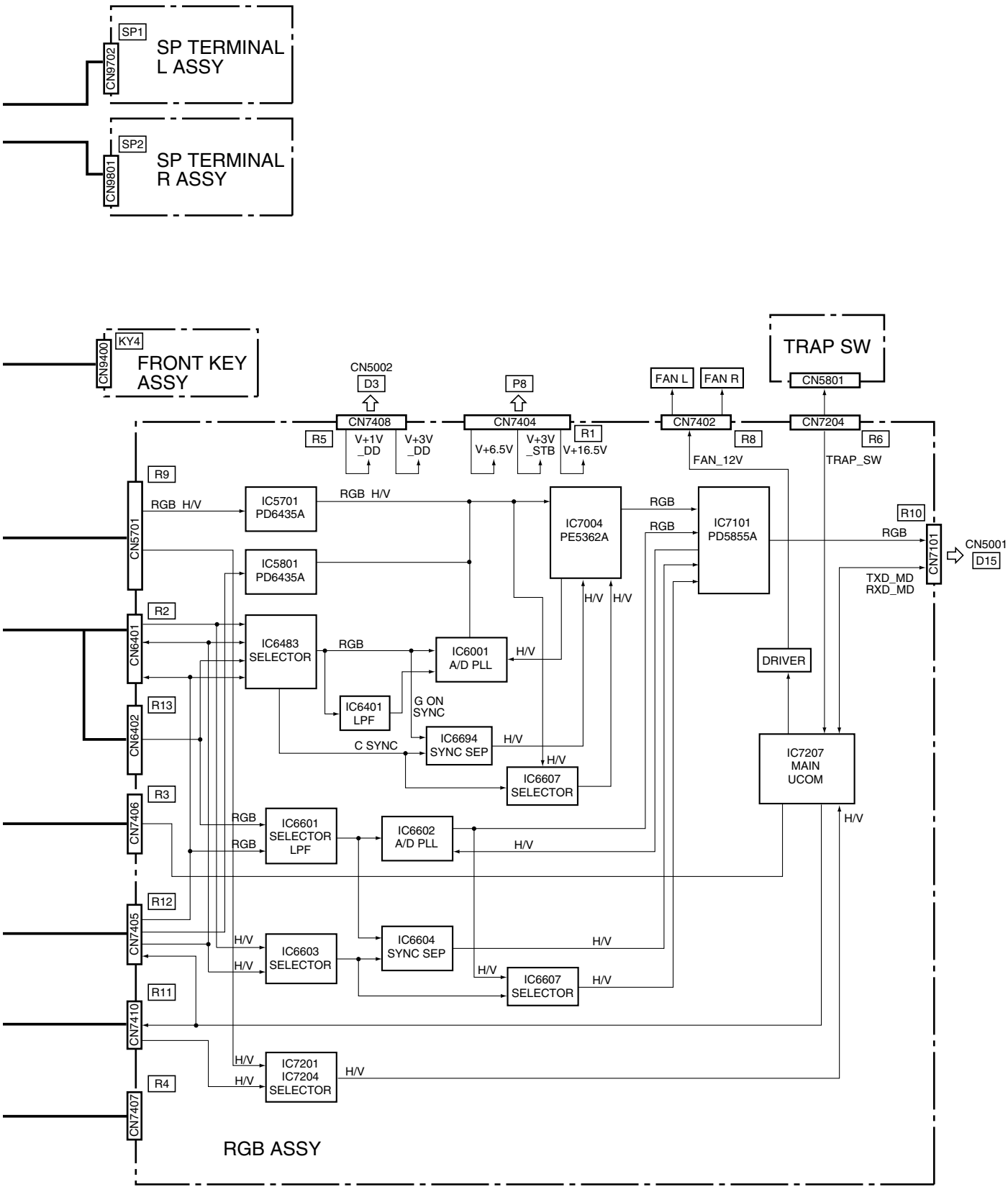
3.1.2 OVERALL BLOCK DIAGRAM (1/2) for PDP-4304, PDP-4314 models



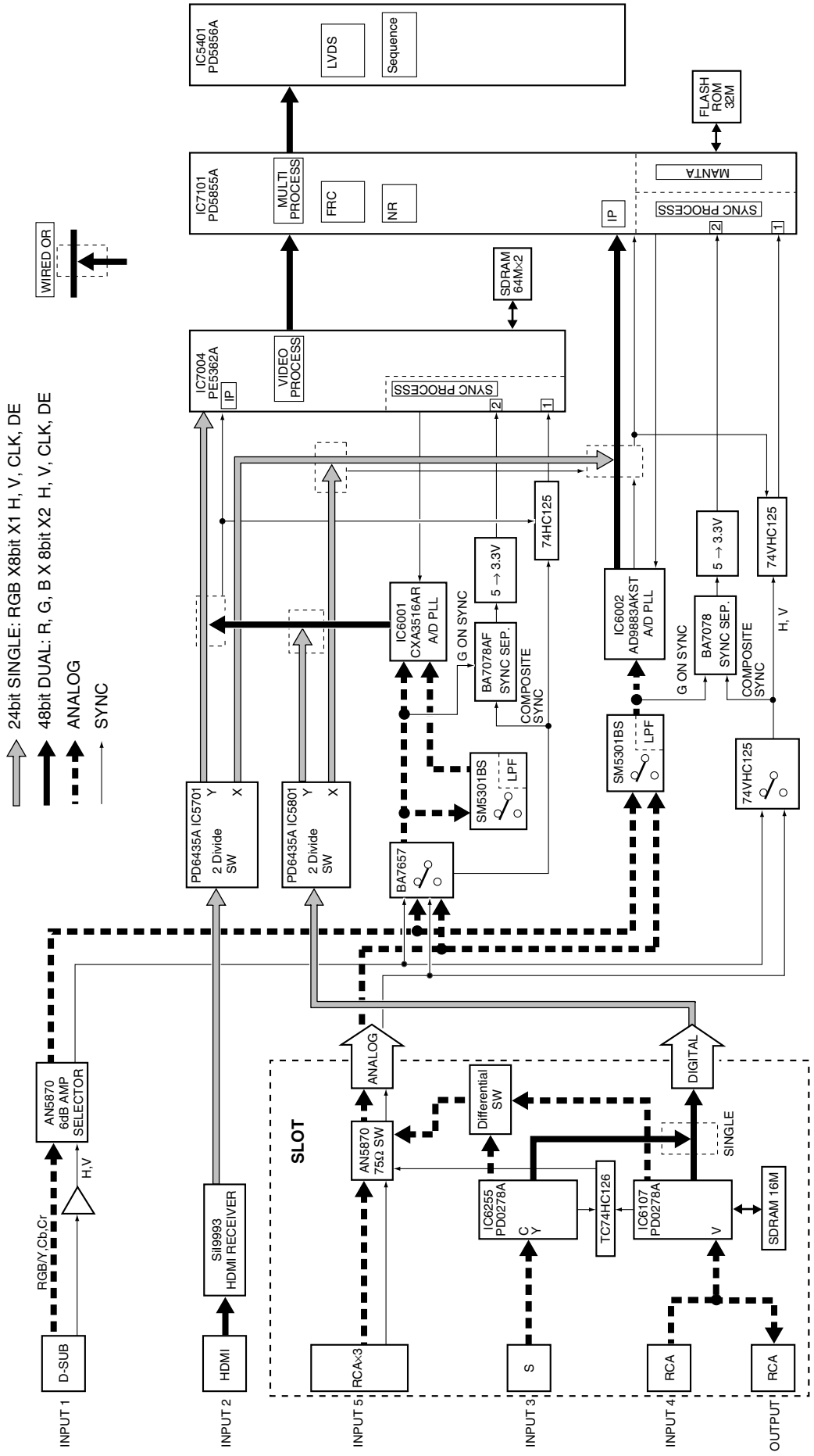

DRIVER IC IC1552
DRIVER IC IC1553
DRIVER IC IC1554
DRIVER IC IC1555
V+5V
V+3V_LVDS V+3V_PLL V+3V_IC5
V+ADR
V+9V V+60V
IC1501
RESONANCE BLOCK
AD1
CN1501
43 ADDRESS ASSY
S1
MAIN POWER
AC INLET
LIVE
NEUTRAL
P4 VSUS
T105
Switching Q120
M107
T103
Switching Q119
+6.5V
+16.5V
P3
M111 VSUS CONT
T101
Q116 +390V
Switching
PFC Q101, Q102
RC101
P5
+6.5V
VADR
T102
Q117
Switching
RL101
D133
P7
LIVE
P2
Vsus_ADJ.
+12V
PS.PD
EXT.PD
RELAY
T104
M105
Switching
D131,D134
NEUTRAL
SECONDARY
PRIMARY
RELAY & PD
STB 3.3V
+6.5V
P8
P6
POWER SUPPLY UNIT
43 X DRIVE ASSY
X2
VSUS
DC_DC CONV BLOCK
V_RN
CN1201
+6.5V
REGULATOR
+5V
VSUS
+16.5V
+5V
MASK MOD IC1203
PSUS
+5V
Drive Signal
SUS OUT
X1
LOGIC BLOCK
+16.5V
+5V
RESONANCE BLOCK
+16.5V
V_RN
-RESET PULSE BLOCK
CN1001
SUS OUT
VSUS
+16.5V
+5V
Drive Signal
MASK MOD IC1207
PSUS
X CONNECTOR B ASSY
X CONNECTOR A ASSY
CN7404
R1
R10
CN7101
RGB ASSY
R5
CN7408
AV I/O I/F ASSY
AV I/O ASSY
CN5002
AP1
AUDIO AMP ASSY
KEY CONTROL ASSY
FRONT KEY ASSY
LED ASSY
SP TERMINAL L ASSY
SP TERMINAL R ASSY
COMM SLOT ASSY
COMM SLOT I/F ASSY
IR RECEIVE ASSY
FAN (L)
FAN (R)
TRAP SW
VIDEO SLOT I/F ASSY
VIDEO SLOT 2 ASSY
Refer to the section 3.1.3 OVERALL BLOCK DIAGRAM (2/2).

3.1.3 OVERALL BLOCK DIAGRAM (2/2) for PDP-5004, PDP-5014, PDP-4304 and PDP-4314 models

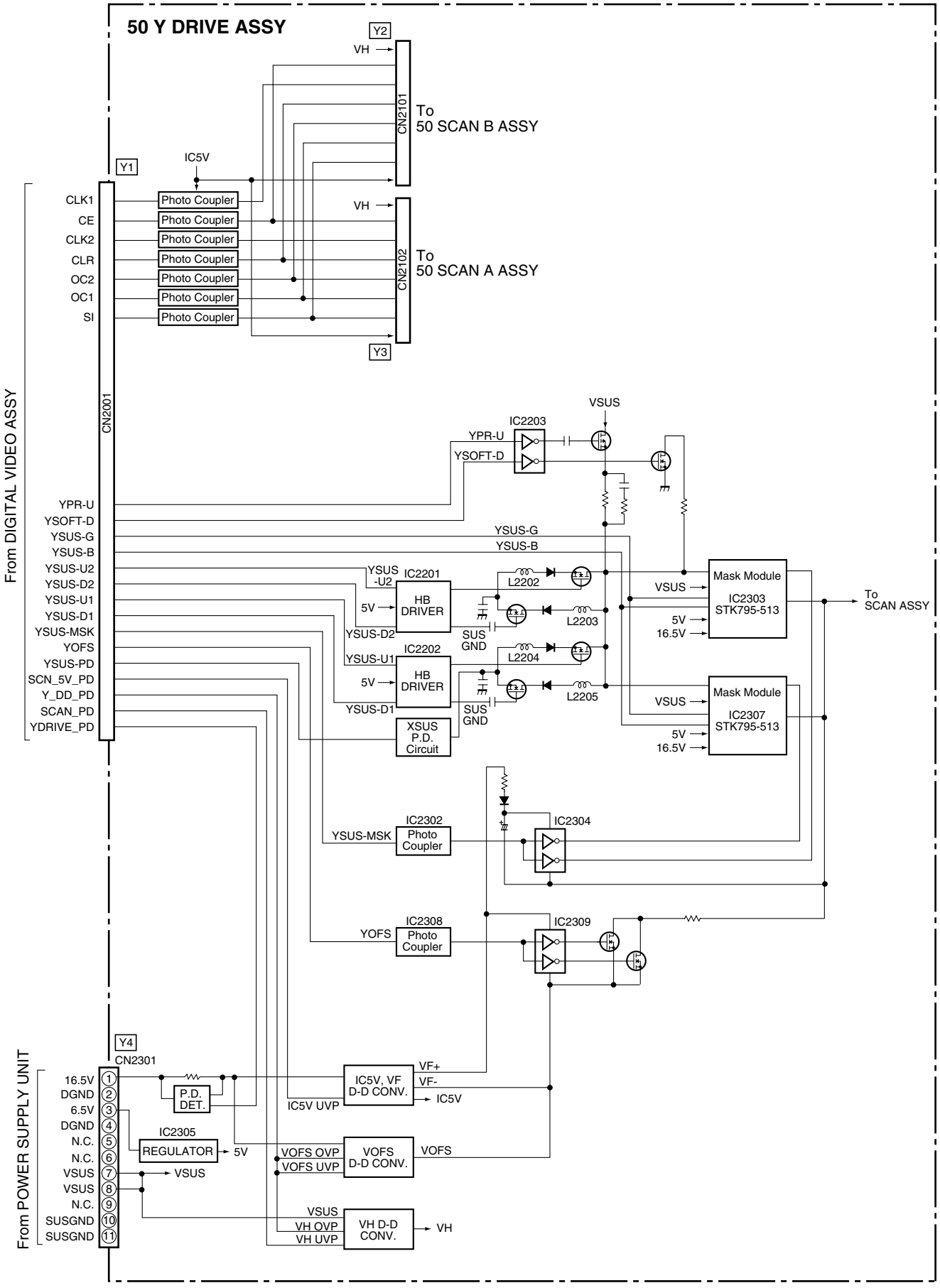



SP1
CN9702
SP TERMINAL L ASSY
SP2
CN9801
SP TERMINAL R ASSY
KY4
CN9400
FRONT KEY ASSY
CN5002
D3
P8
CN7408
CN7404
CN7402
CN7204
FAN L
FAN R
TRAP SW
CN5801
R5
R1
R8
R6
V+1V _DD
V+3V _DD
V+6.5V
V+3V _STB
V+16.5V
FAN_12V
TRAP_SW
R9
CN5701
RGB H/V
IC5701 PD6435A
IC5801 PD6435A
IC7004 PE5362A
IC7101 PD5855A
R10
CN7101
CN5001
D15
TXD_MD
RXD_MD
R2
CN6401
IC6483 SELECTOR
IC6001 A/D PLL
IC6401 LPF
G ON SYNC
R13
CN6402
C SYNC
IC6694 SYNC SEP
IC6607 SELECTOR
DRIVER
IC7207 MAIN UCOM
R3
CN7406
IC6601 SELECTOR LPF
IC6602 A/D PLL
R12
CN7405
IC6603 SELECTOR
IC6604 SYNC SEP
R11
CN7410
R4
CN7407
IC7201 IC7204 SELECTOR
H/V
RGB
RGB ASSY

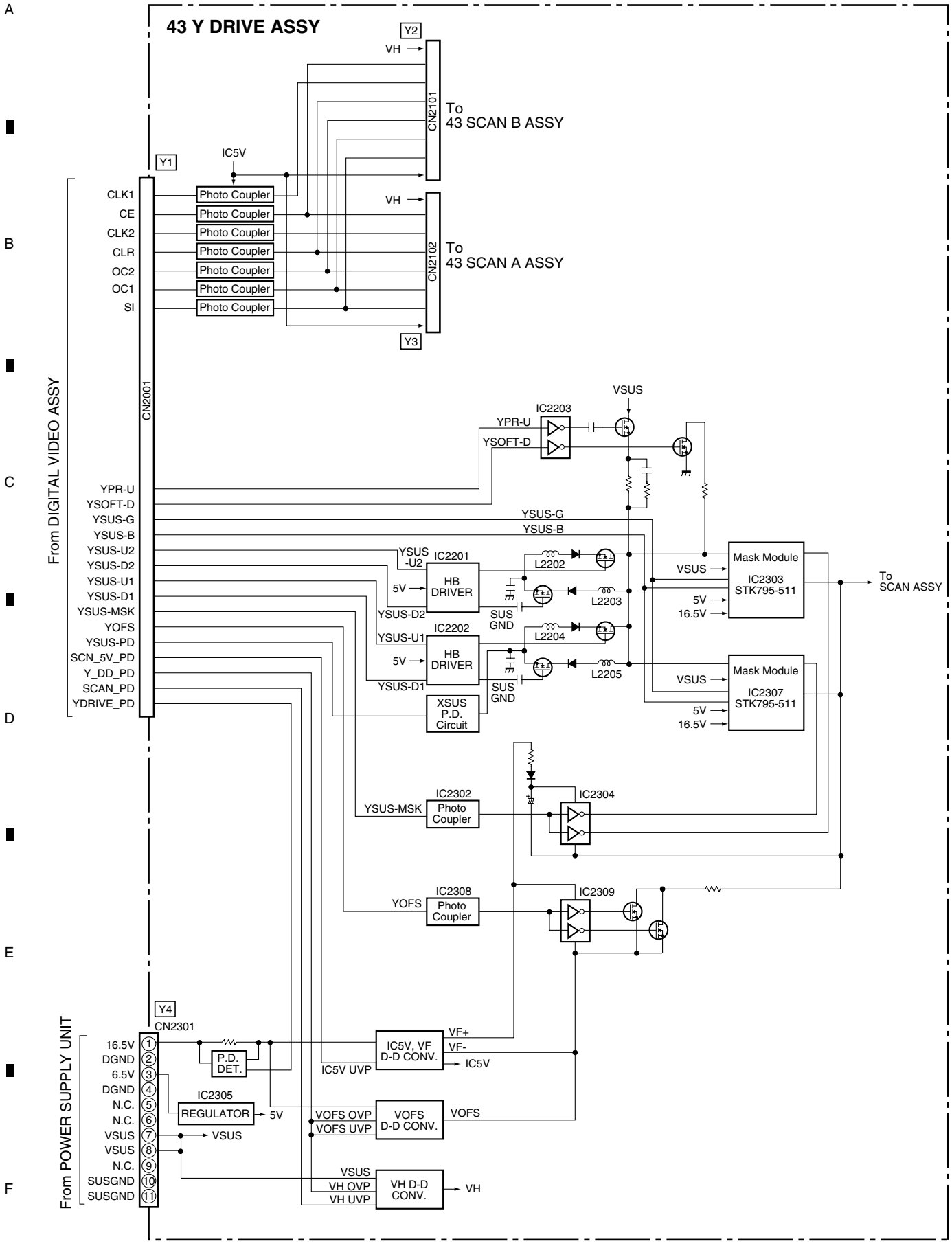
3.1.4 SIGNAL ROUTE



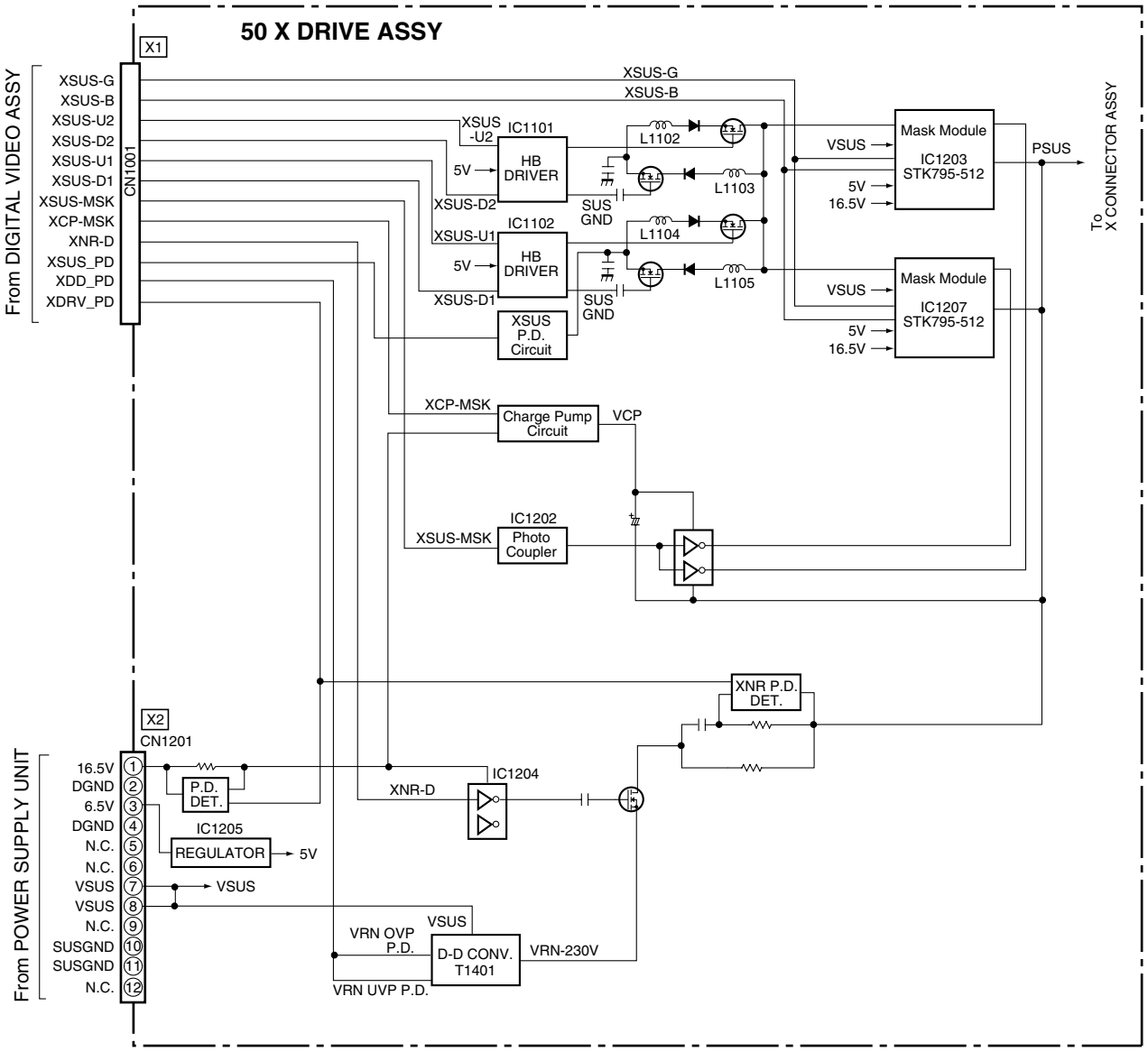
3.1.5 50 Y DRIVE ASSY



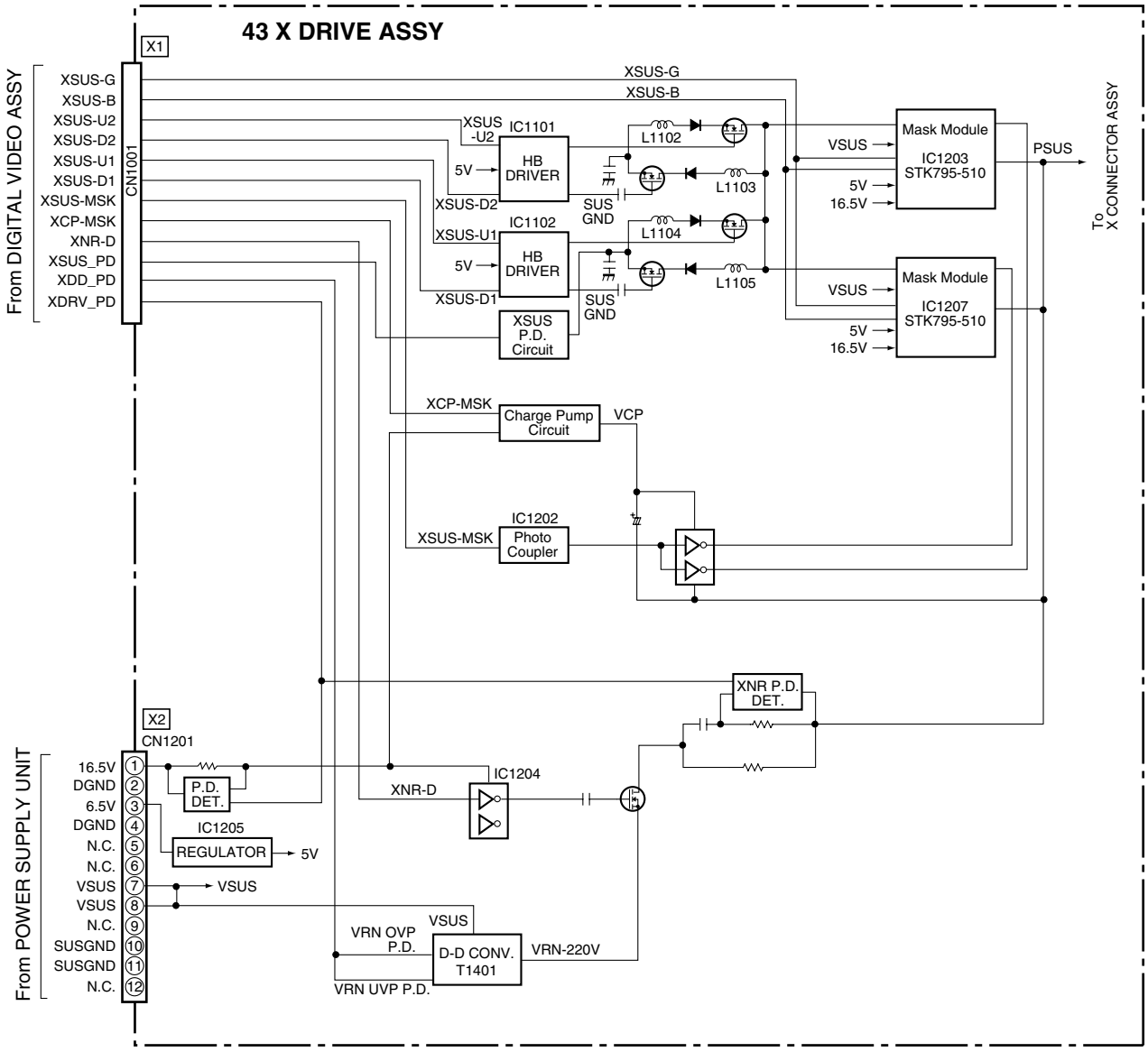
3.1.6 43 Y DRIVE ASSY



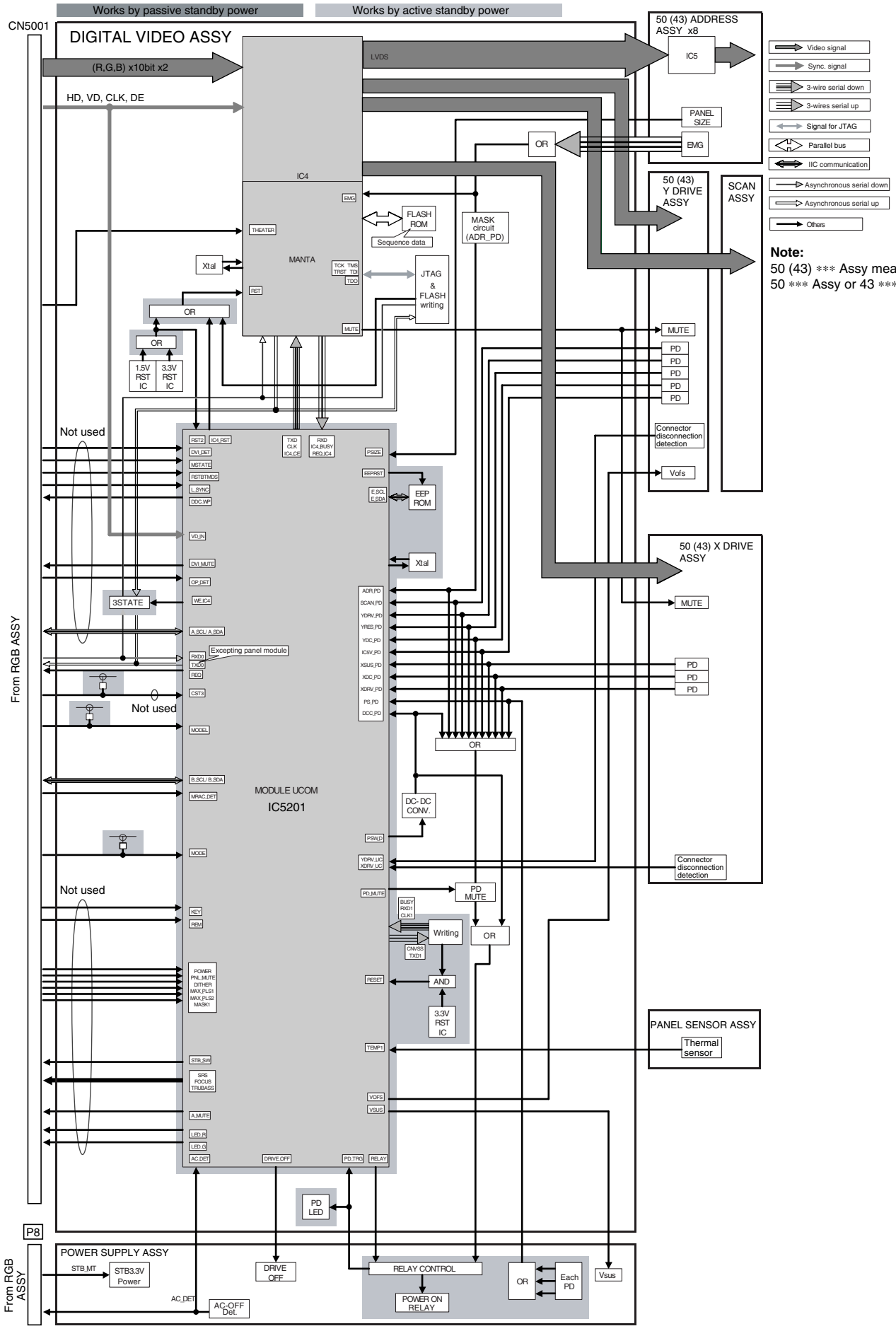
3.1.7 50 X DRIVE ASSY



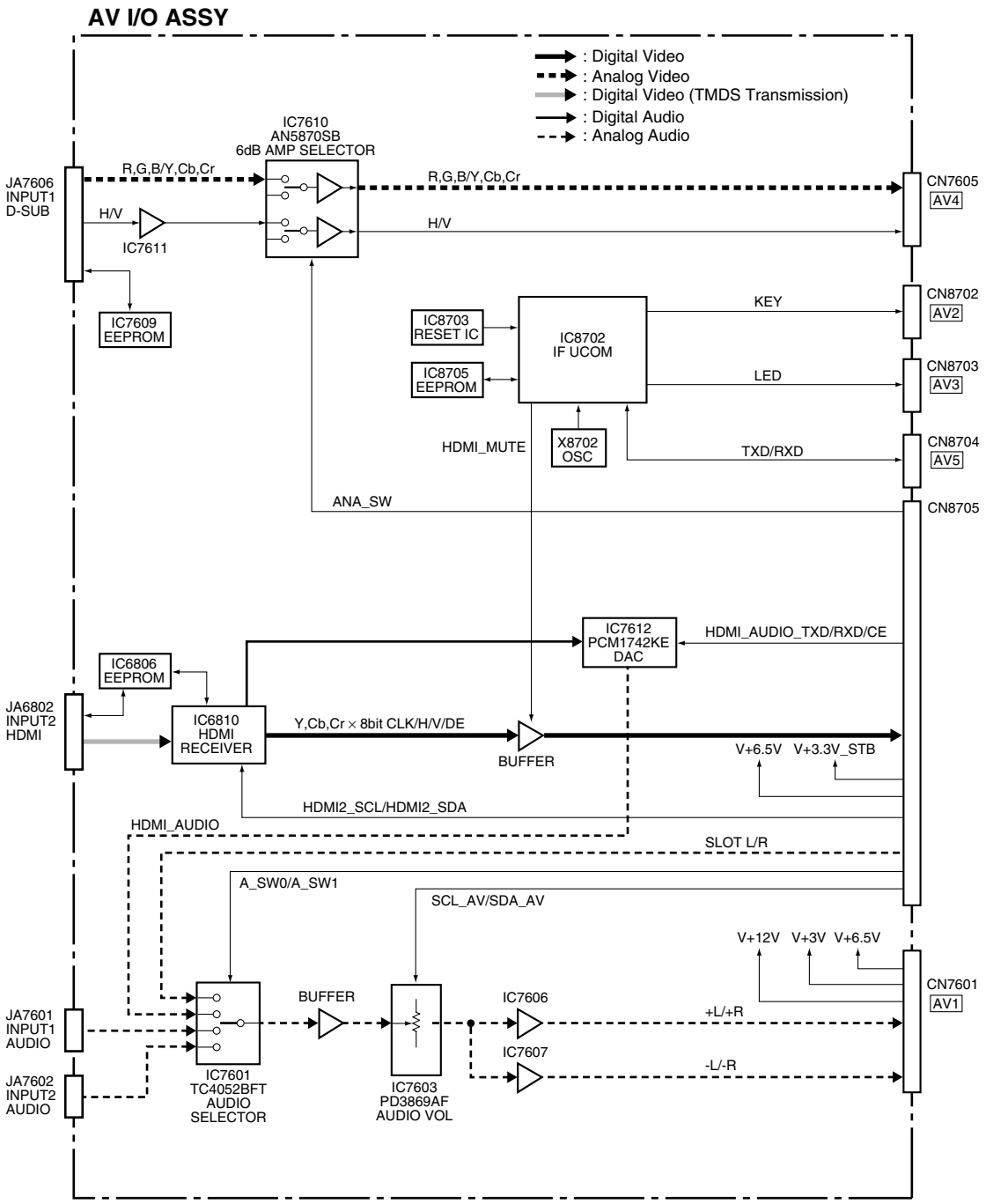
3.1.8 43 X DRIVE ASSY



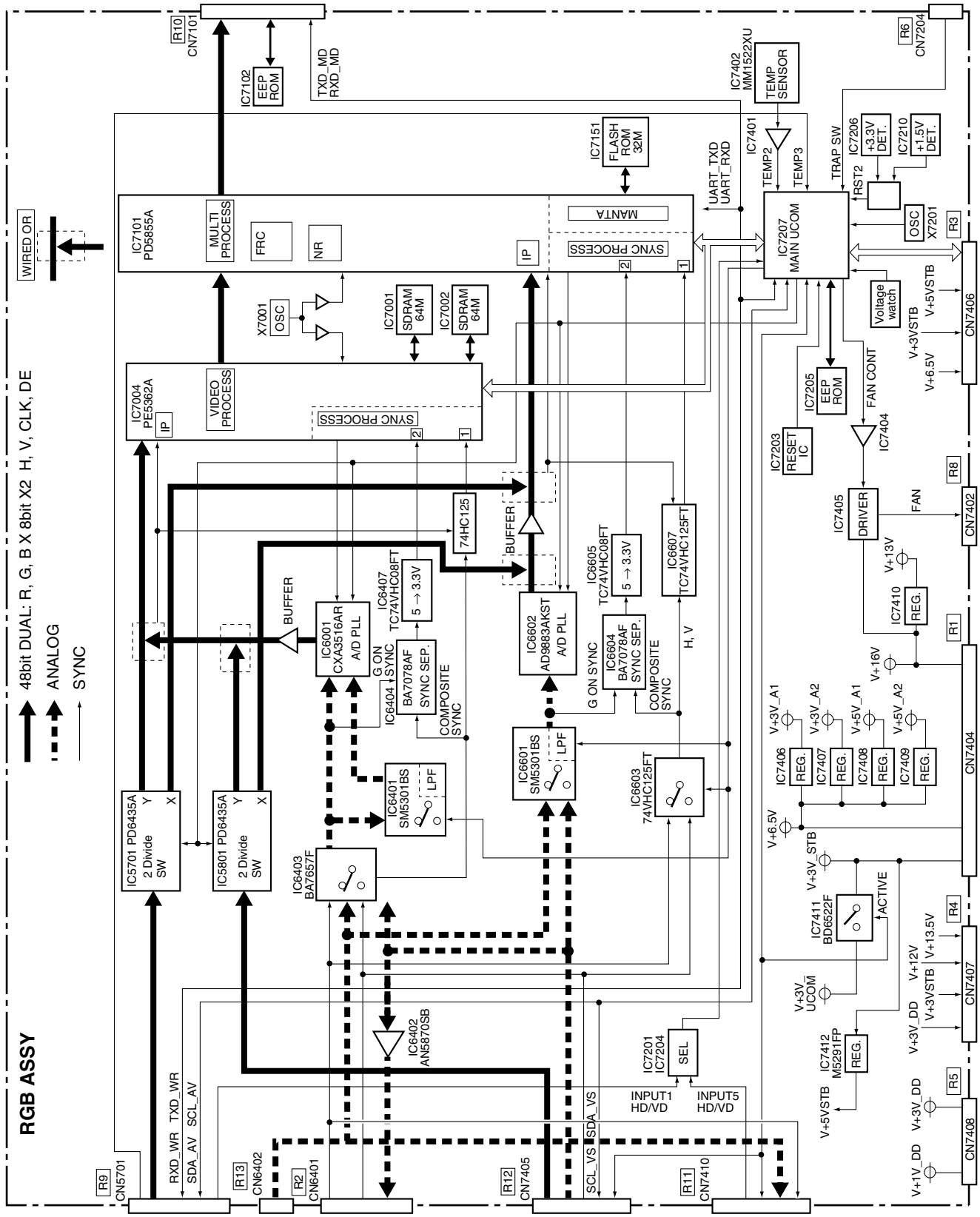
3.1.9 DIGITAL VIDEO ASSY



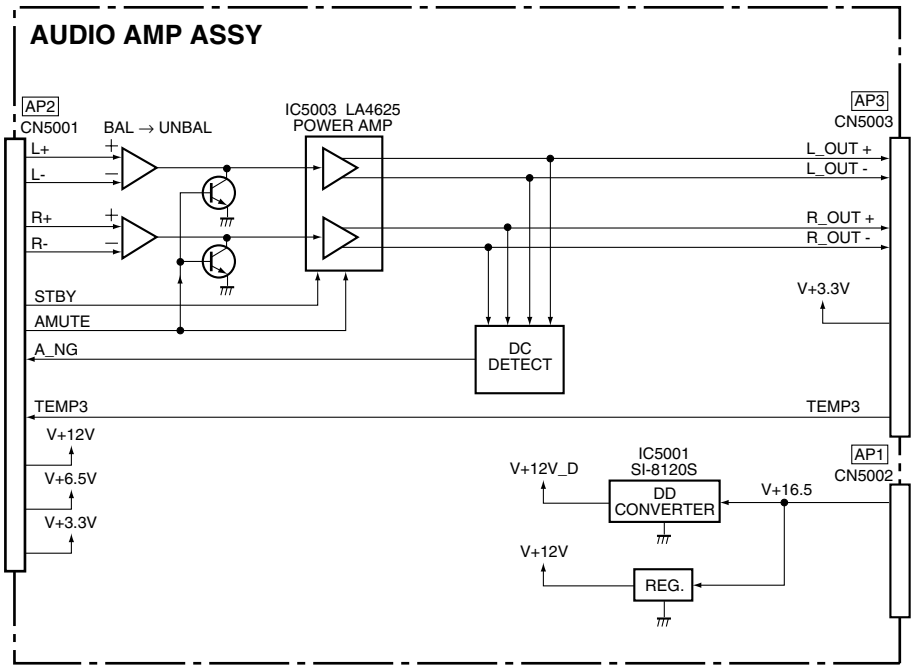
3.1.10 AV I/O ASSY

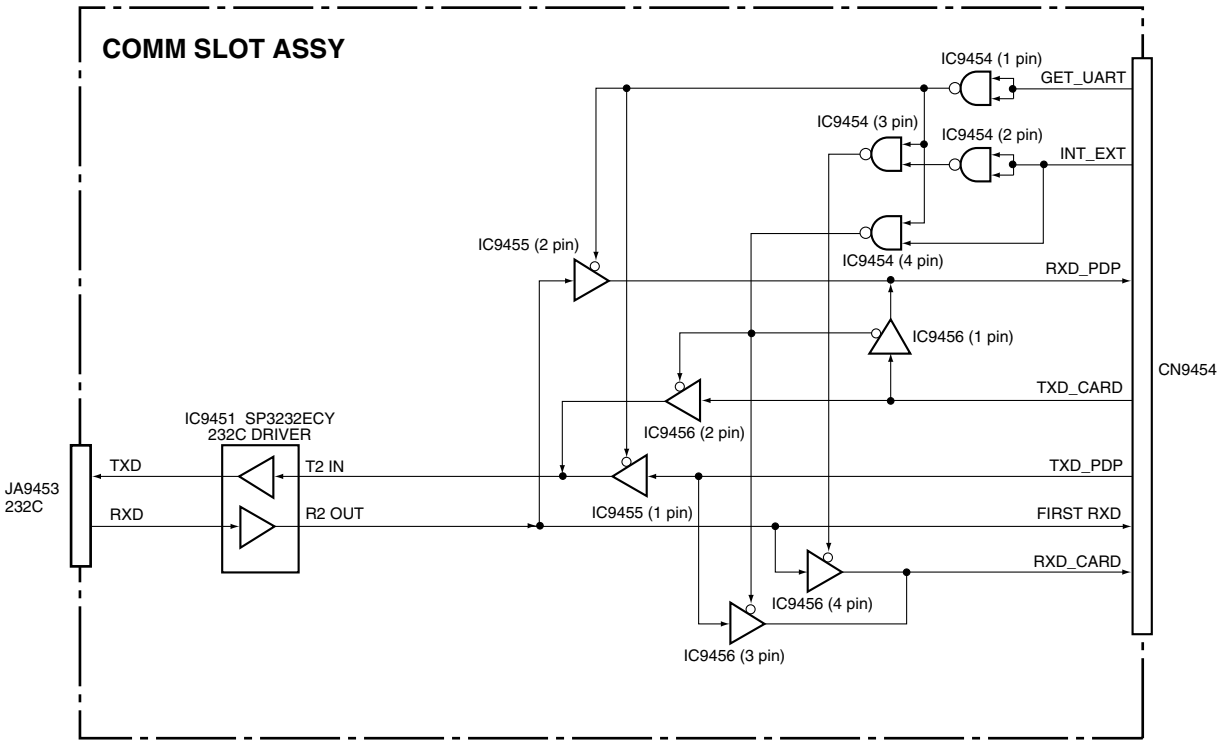


3.1.11 RGB ASSY

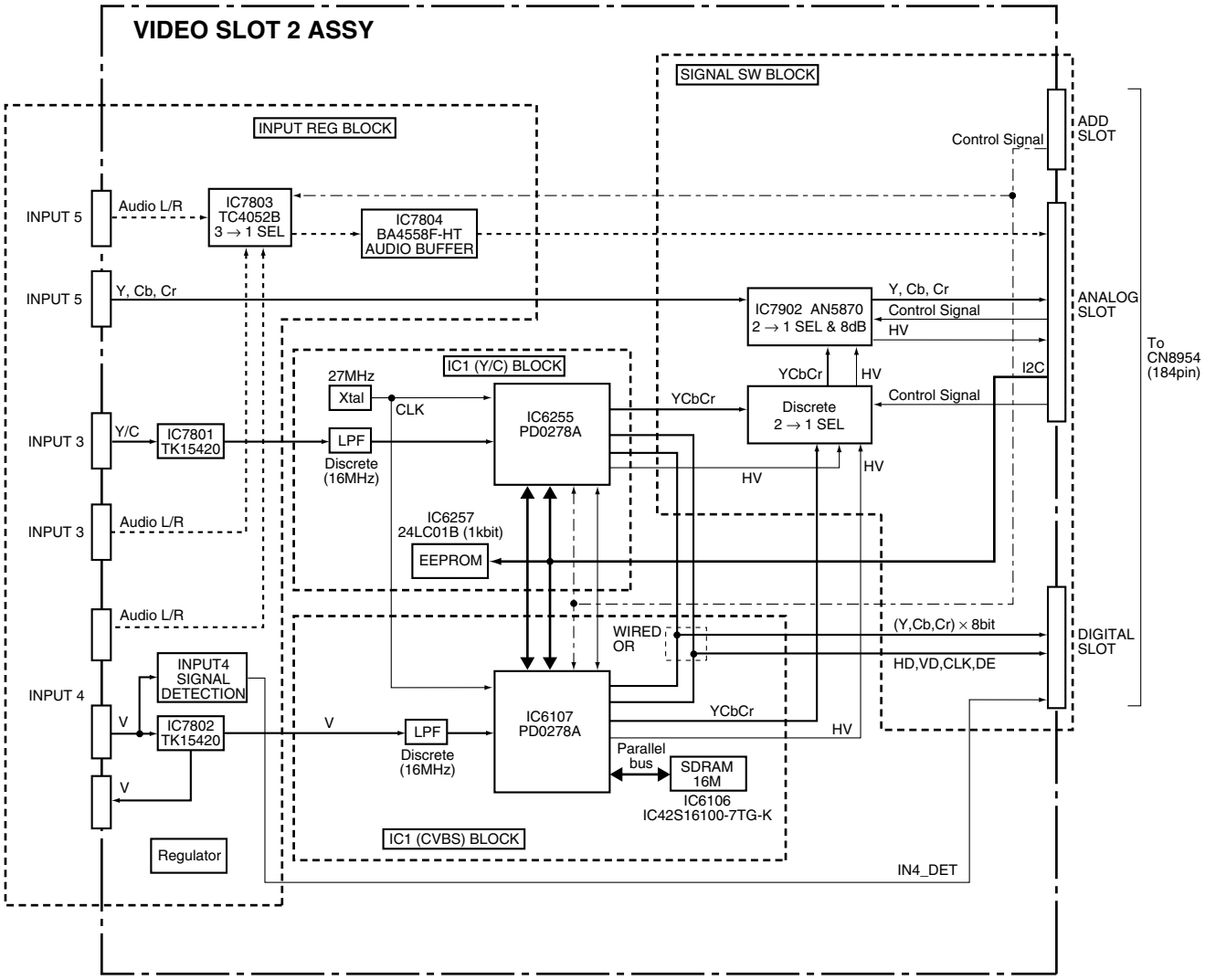


3.1.12 AUDIO AMP and COMM SLOT ASSYS





3.1.13 VIDEO SLOT 2 ASSY

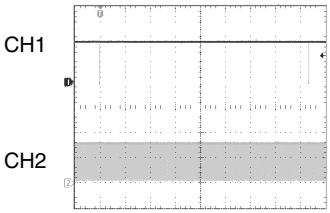


3.2 WAVEFORMS

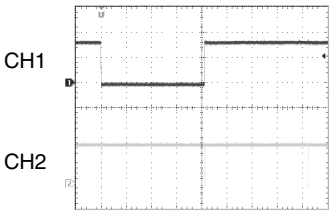
DIGITAL VIDEO ASSY (4/6)

• DIGITAL I/F BLOCK

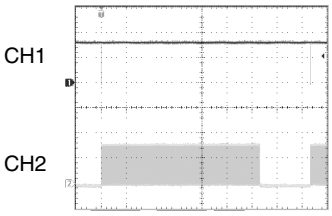
① CH1: K5003 (VD)
CH2: K5002 (HD)
V: 2V/div. H: 2msec/div.



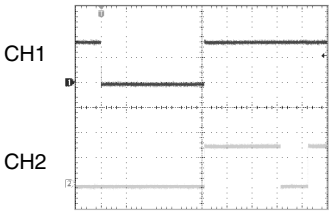
① CH1: K5003 (VD)
CH2: K5002 (HD)
V: 2V/div. H: 4µsec/div.



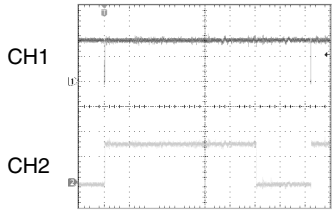
② CH1: K5003 (VD)
CH2: K5004 (DE)
V: 2V/div. H: 2msec/div.



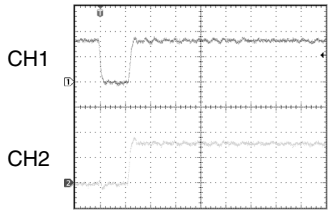
② CH1: K5003 (VD)
CH2: K5004 (DE)
V: 2V/div. H: 4µsec/div.



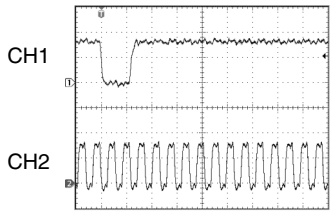
③ CH1: K5002 (HD)
CH2: K5004 (DE)
V: 2V/div. H: 2µsec/div.



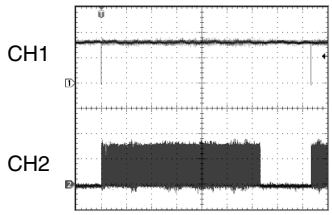
③ CH1: K5002 (HD)
CH2: K5004 (DE)
V: 2V/div. H: 40nsec/div.



④ CH1: K5002 (HD)
CH2: CN5001-pin 77 (DCLK)
V: 2V/div. H: 40nsec/div.



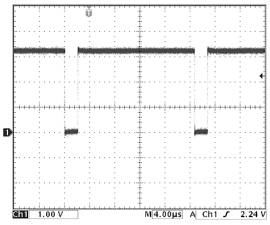
⑤ CH1: K5003 (VD)
CH2: CN5001-pin 88 (RA_IN2)
V: 2V/div. H: 2msec/div.



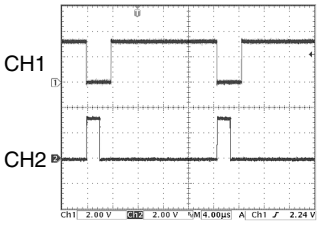
RGB ASSY (2/10, 3/10, 4/10)
MAUN AD BLOCK, MAIN LPF BLOCK, SUS LPF&AD BLOCK

Input: INPUT 1
Signal: RGB, XGA 60 Hz, Color-bar
⑫ to ㉑, ㉔ : With two screens, a SUB screen chooses INPUT1 and observes it.

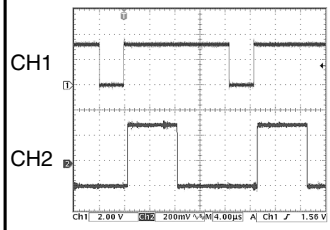
④ K6404 (HD1_MAIN)
V: 1V/div. H: 4µsec/div.



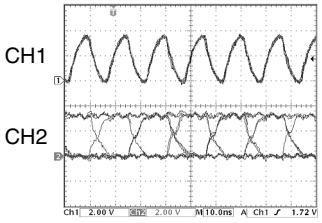
⑪ CH1: IK6012 (PLLHD_MAIN)
V: 2V/div. H: 4µsec/div.
⑨ CH2: K6013 (CLAMP_MAIN)
V: 2V/div. H: 4µsec/div.



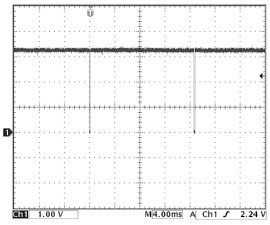
㉔ CH1: K6601(PLLHD_SUB)
V: 2V/div. H: 4µsec/div.
⑮ CH2: Foot of C6614 (GAIN)
V: 200mV/div. H: 4µsec/div.



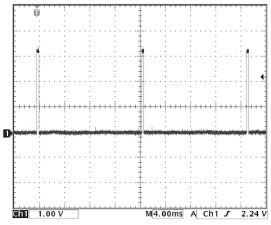
⑲ CH1: Foot of R6628 (DATACK)
V: 2V/div. H:10nsec/div.
㉑ CH2: Foot of R6644 (RED0)
V: 2V/div. H: 10nsec/div.



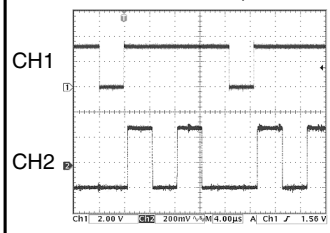
⑤ K6403 (VD1_MAIN)
V: 1V/div. H: 4msec/div.



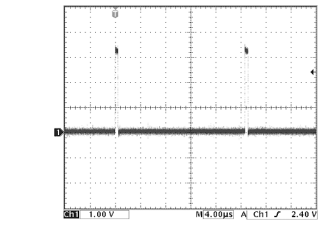
⑩ K6011 (PLLHOLD_MAIN)
V: 1V/div. H: 4msec/div.



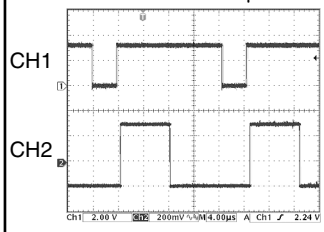
㉔ CH1: K6601(PLLHD_SUB)
V: 2V/div. H: 4µsec/div.
⑯ CH2: Foot of C6623 (RAIN)
V: 200mV/div. H: 4µsec/div.



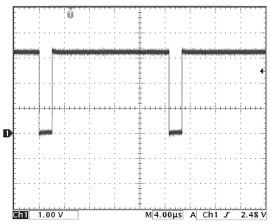
⑳ Foot of R6637 (HSOUT)
V: 1V/div. H: 4µsec/div.



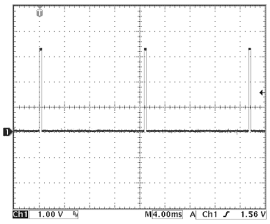
⑪ CH1: K6012 (PLLHD_MAIN)
V: 2V/div. H: 4µsec/div.
⑥ CH2: K6001 (G)
V: 200mV/div. H: 4µsec/div.



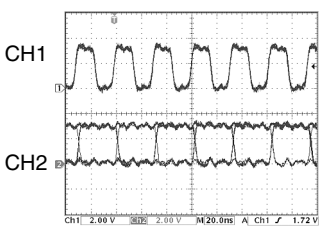
⑫ K6605 (HD1_SUB)
V: 1V/div. H: 4µsec/div.



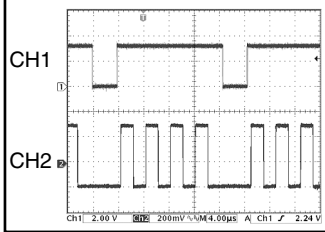
⑰ K6602 (PLL HOLD_SUB)
V: 1V/div. H: 4msec/div.



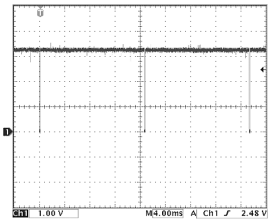
㉒ CH1: IC6008-pin2 (CLK)
V: 2V/div. H:20nsec/div.
㉓ CH2: IC6006-pin 9 (RB0)
V: 2V/div. H: 20nsec/div.



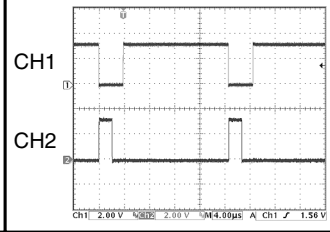
⑪ CH1: K6012 (PLLHD_MAIN)
V: 2V/div. H: 4µsec/div.
⑦ CH2: K6002 (B)
V: 200mV/div. H: 4µsec/div.



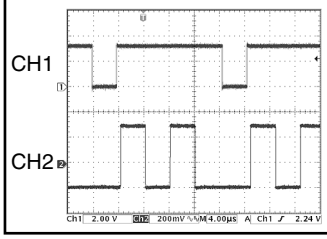
⑬ K6604 (VD1_SUB)
V: 1V/div. H: 4msec/div.



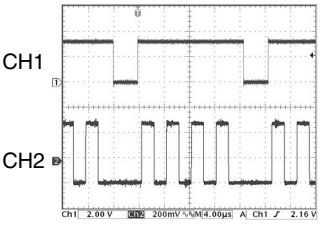
㉔ CH1: K6601(PLLHD_SUB)
V: 2V/div. H: 4µsec/div.
⑱ CH2: K6603 (CLAMP)
V: 2V/div. H: 4µsec/div.



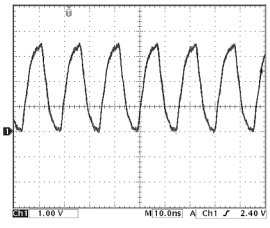
⑪ CH1: K6012 (PLLHD_MAIN)
V: 2V/div. H: 4µsec/div.
⑧ CH2: K6003 (R)
V: 200mV/div. H: 4µsec/div.



㉔ CH1: K6601(PLLHD_SUB)
V: 2V/div. H: 4µsec/div.
⑭ CH2: Foot of C6609 (BAIN)
V: 200mV/div. H: 4µsec/div.



⑲ Foot of R6628 (DATACK)
V: 1V/div. H: 10nsec/div.

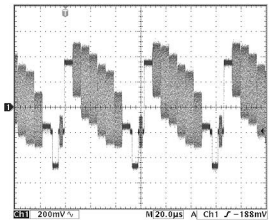


VIDEO SLOT 2 ASSY (1/4)

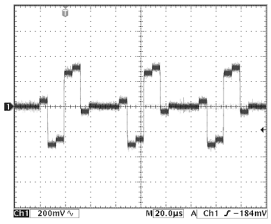
• IC1(CVBS) BLOCK

Input: INPUT 4
Signal: NTSC 525i, Color-bar

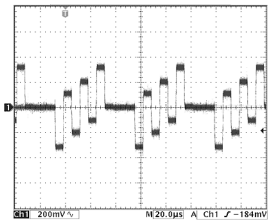
① IC6107-pin 51 (CVBS IN)
V: 200mV/div. H: 20µsec/div.



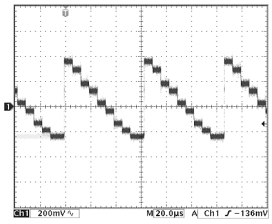
② IC6107-pin 65 (Cr)
V: 200mV/div. H: 20µsec/div.



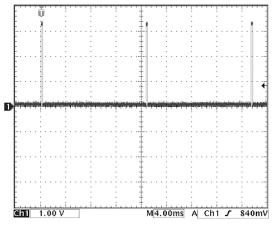
③ IC6107-pin 72 (Cb)
V: 200mV/div. H: 20µsec/div.



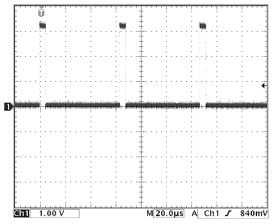
④ IC6107-pin 67 (Y)
V: 200mV/div. H: 20µsec/div.



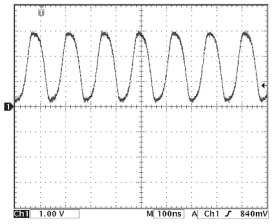
⑤ IC6107-pin 107 (VD_IC1V)
V: 1V/div. H: 4msec/div.



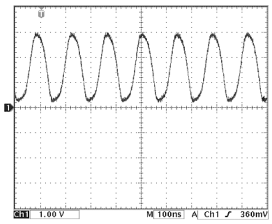
⑥ IC6107-pin 108 (HD_IC1V)
V: 1V/div. H: 20µsec/div.



⑦ IC6107-pin 87 (PLSINI1)
V: 1V/div. H: 100msec/div.



⑧ IC6107-pin 90 (PLSINI2)
V: 1V/div. H: 100msec/div.

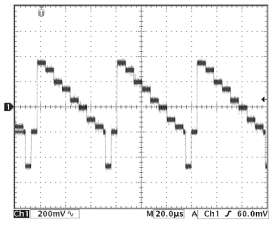


VIDEO SLOT2 ASSY(2/4)

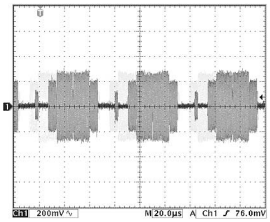
• IC1(Y/C) BLOCK

Input: INPUT 3
Signal: Y/C NTSC 525i, Color-bar

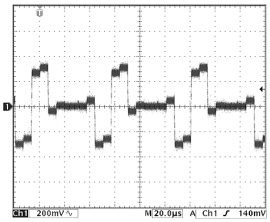
⑨ Q6257 (2/2)-Emitter (YIN)
V: 200mV/div. H: 20µsec/div.



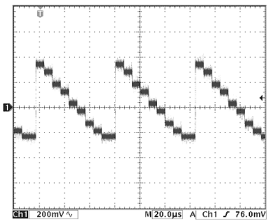
⑩ Q6256 (2/2)-Emitter (CIN)
V: 200mV/div. H: 20µsec/div.



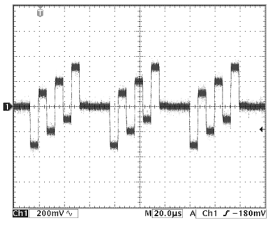
⑪ IC6255-pin 65 (Cr)
V: 200mV/div. H: 20µsec/div.



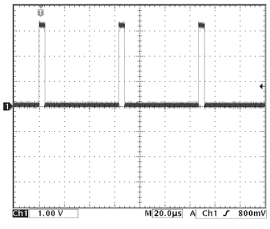
⑫ IC6255-pin 67 (Y)
V: 200mV/div. H: 20µsec/div.



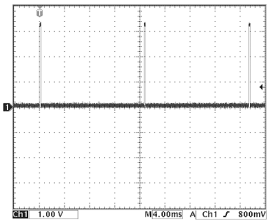
⑬ IC6255-pin 72 (Cb)
V: 200mV/div. H: 20µsec/div.



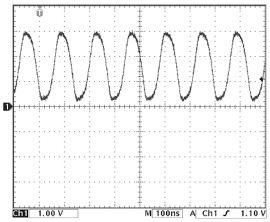
⑭ IC6255-pin 108 (HD_IC1S)
V: 1V/div. H: 20µsec/div.



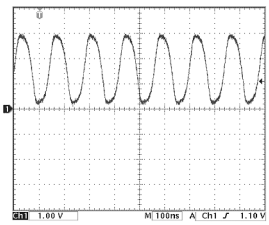
⑮ IC6255-pin 107 (VD_IC1S)
V: 1V/div. H: 4msec/div.



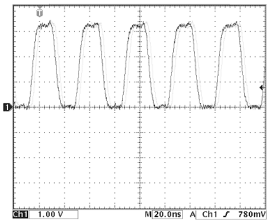
⑯ IC6255-pin 90 (PLSINI2)
V: 1V/div. H: 100nsec/div.



⑰ IC6255-pin 87 (PLSINI1)
V: 1V/div. H: 100nsec/div.

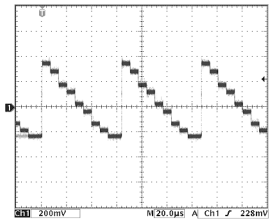


⑱ Foot of R6294 (SYSCLK)
V: 1V/div. H: 20nsec/div.

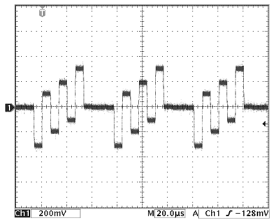


VIDEO SLOT2 ASSY (4/4)
• SIGNAL SW BLOCK

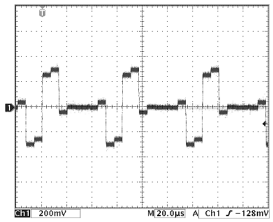
⑲ (-) side of C7908 (G/Y)
V: 200mV/div. H: 20µsec/div.



⑳ (-) side of C7912 (B/Cb)
V: 200mV/div. H: 20µsec/div.

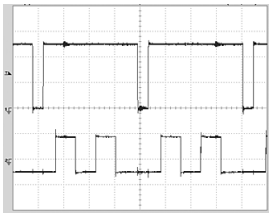


㉑ (-) side of C7917 (R/Cr)
V: 200mV/div. H: 20µsec/div.

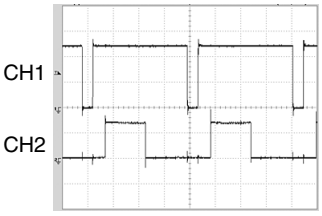


AV I/O ASSY (1/3)
• AV I/O BLOCK
• VIDEO
Input: INPUT 1
Signal: RGB, XGA 60 Hz, Color-bar

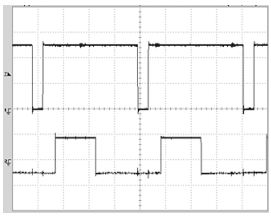
① CH1: CN7605-pin 10(HD_IO)
V: 2V/div. H: 5µsec/div.
② CH2: CN7605-pin 16 (R_IO)
V: 500mV/div. H: 5µsec/div.



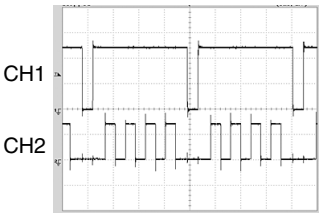
⑥ CH1: JA7606-pin 13 (HD)
V: 2V/div. H: 5µsec/div.
⑧ CH2: JA7606-pin 2 (G)
V: 500mV/div. H: 5µsec/div.



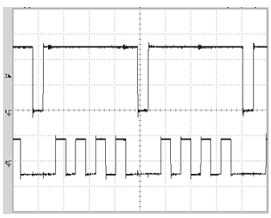
① CH1: CN7605-pin 10(HD_IO)
V: 2V/div. H: 5µsec/div.
③ CH2: CN7605-pin 14 (G_IO)
V: 500mV/div. H: 5µsec/div.



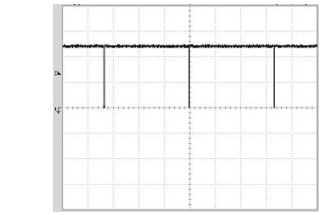
⑥ CH1: JA7606-pin 13 (HD)
V: 2V/div. H: 5µsec/div.
⑨ CH2: JA7606-pin 3 (B)
V: 500mV/div. H: 5µsec/div.



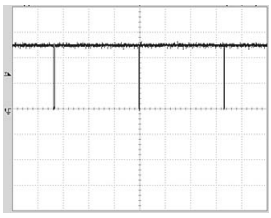
① CH1: CN7605-pin 10(HD_IO)
V: 2V/div. H: 5µsec/div.
④ CH2: CN7605-pin 12 (B_IO)
V: 500mV/div. H: 5µsec/div.



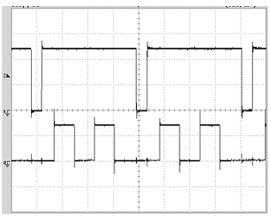
⑩ JA7606-pin 14 (VD)
V: 2V/div. H: 5msec/div.



⑤ CN7605-pin 9 (VD_IO)
V: 2V/div. H: 5msec/div.

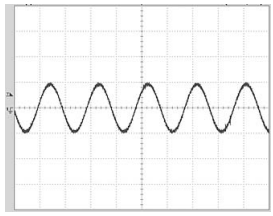


⑥ CH1: JA7606-pin 13 (HD)
V: 2V/div. H: 5µsec/div.
⑦ CH2: JA7606-pin 1 (R)
V: 500mV/div. H: 5µsec/div.

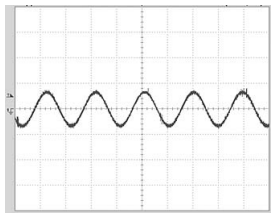


AV I/O ASSY (1/3)
• AV I/O BLOCK
• AUDIO
Input: INPUT 1
Signal: 200mVrms, 1 kHz input, VOL MAX

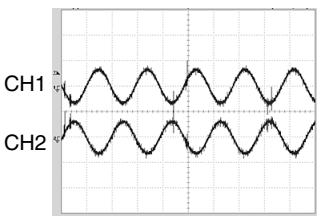
⑪ IC7601-pin 12 (L-AUDIO)
V: 200mV/div. H: 500µsec/div.



⑫ IC7603-pin 14 (L-AUDIO)
V: 200mV/div. H: 500µsec/div.

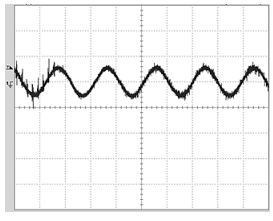


⑬ CH1: CN7601-pin 14 (+L_OUT)
V: 200mV/div. H: 500µsec/div.
⑭ CH2: CN7601-pin 13 (-L_OUT)
V: 200mV/div. H: 500µsec/div.

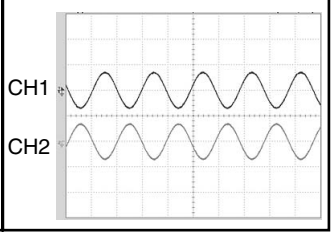


AUDIO AMP ASSY
• AUDIO
Input: INPUT 1
Signal: 200mVrms, 1 kHz input, VOL MAX

① IC5003-pin 1 (L-AUDIO)
V: 50mV/div. H: 500µsec/div.



② CH1: CN5003-pin 9 (L-)
V: 2V/div. H: 500µsec/div.
③ CH2: CN5003-pin 8 (L+)
V: 2V/div. H: 500µsec/div.

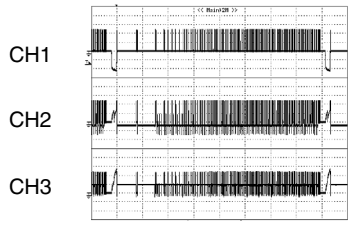


50 (43) X DRIVE ASSY, 50 (43) Y DRIVE ASSY and 50 (43) SCAN A ASSY

• 50 (43) X SUS BLOCK, 50 (43) Y LOGIC BLOCK, 50 (43) Y SUS BLOCK

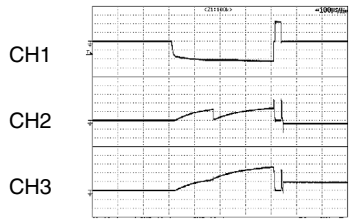
① Drive Output Waveform (1 field,color-bar)

CH1: R1226 (XPSUS) - K1201 (SUSGND)
(50 (43) X DRIVE ASSY)
CH2: R2348 (YPSUS) - K2301 (SUSGND)
(50 (43) Y DRIVE ASSY)
CH3: K3001 (Scan OUT) - K2301 (SUSGND)
(50 (43) SCAN A ASSY)
V: 100V/div. H: 2msec/div.



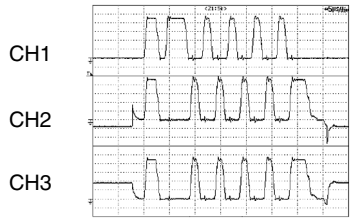
② Reset Pulse

CH1: R1226 (XPSUS) - K1201 (SUSGND)
(50 (43) X DRIVE ASSY)
CH2: R2348 (YPSUS) - K2301 (SUSGND)
(50 (43) Y DRIVE ASSY)
CH3: K3001 (Scan OUT) - K2301 (SUSGND)
(50 (43) SCAN A ASSY)
V: 100V/div. H: 100µsec/div.



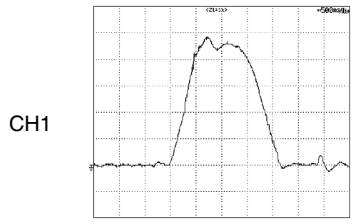
③ Sustain Pulse (1 sub-sub-field)

CH1: R1226 (XPSUS) - K1201 (SUSGND)
(50 (43) X DRIVE ASSY)
CH2: R2348 (YPSUS) - K2301 (SUSGND)
(50 (43) Y DRIVE ASSY)
CH3: K3001 (Scan OUT) - K2301 (SUSGND)
(50 (43) SCAN A ASSY)
V: 50V/div. H: 5µsec/div.



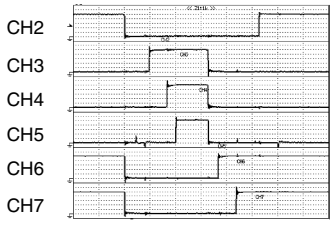
④ Sustain Waveform

CH1: R2348 (YPSUS) - K2301 (SUSGND)
(50 (43) Y DRIVE ASSY)
V: 50V/div. H: 500nsec/div.



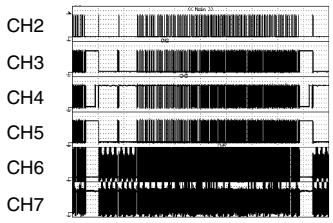
⑤ Control Signal (Sustain Waveform Gen.)

CH2: K2016 (YSUS-G) - K2010 (DGND)
CH3: K2025 (YSUS-U1) - K2010 (DGND)
CH4: K2022 (YSUS-U2) - K2010 (DGND)
CH5: K2026 (YSUS-B) - K2010 (DGND)
CH6: K2024 (YSUS-D2) - K2010 (DGND)
CH7: K2027 (YSUS-D1) - K2010 (DGND)
(50 (43) Y DRIVE ASSY)
V: 1V/div. H: 500nsec/div.



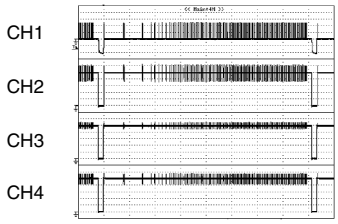
⑥ Scan Control Signal (1 field, color-bar)

CH2: K2006 (SI) - K2029 (DGND)
CH3: K2009 (OC1) - K2029 (DGND)
CH4: K2004 (OC2) - K2029 (DGND)
CH5: K2007 (CLR) - K2029 (DGND)
CH6: K2003 (CLK2) - K2029 (DGND)
CH7: K2008 (LE) - K2029 (DGND)
(50 (43) Y DRIVE ASSY)
V: 1V/div. H: 2msec/div.



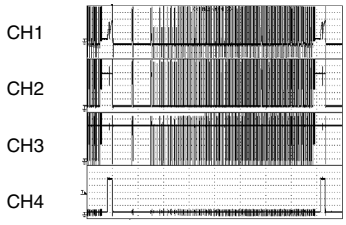
⑦ X Drive Pulse Control Signal (color-bar)

CH1: R1226 (XPSUS) - K2301 (SUSGND)
V: 100V/div. H: 2msec/div.
CH2: K1016 (XCP-MSK) - K1020 (DGND)
CH3: K1015 (XSUS-MSK) - K1020 (DGND)
CH4: K1014 (XNR-D) - K1020 (DGND)
V: 1V/div. H: 2msec/div.
(50 (43) X DRIVE ASSY)



⑧ Y Drive Pulse Control Signal (color-bar)

CH1: R2348 (YPSUS) - K2301 (SUSGND)
V: 50V/div. H: 2msec/div.
CH2: K2015 (YSUS-MSK) - K2010 (DGND)
CH3: K2017 (YSOFT-D) - K2010 (DGND)
CH4: K2023 (YPR-U) - K2010 (DGND)
V: 1V/div. H: 2msec/div.
(50 (43) Y DRIVE ASSY)



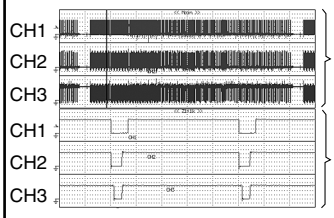
Note:
50 (43) *** Assy means
50 *** Assy or 43 *** Assy.

50 (43) ADDRESS ASSY

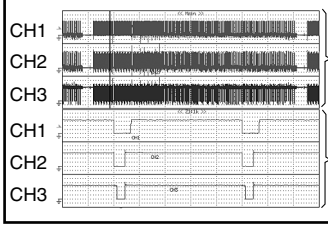
• ADR RESONANCE BLOCK (VIDEO)

Note:
50 (43) *** Assy means
50 *** Assy or 43 *** Assy.

① CH1: IC1601-pin 2 (ADR_B2)
CH2: IC1603-pin 4 (ADR_U1)
CH3: IC1603-pin 2 (ADR_D1)
V: 1V/div.
(Input: VIDEO, Signal: Color-bar)



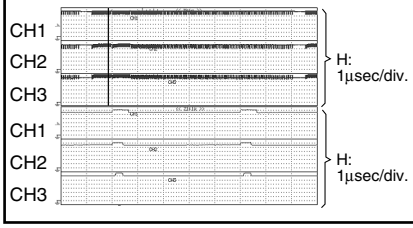
② CH1: IC1601-pin 2 (ADR_B2)
CH2: IC1602-pin 4 (ADR_U2)
CH3: IC1602-pin 2 (ADR_D2)
V: 1V/div.
(Input: VIDEO, Signal: Color-bar)



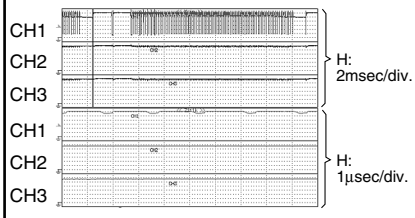
③ CH1: Q1601-pin 4 (ADR_B2)
CH2: Q1603-pin 4 (ADR_U1)
CH3: Q1603-pin 2 (ADR_D1)
V: 10V/div.
(Input: VIDEO, Signal: Color-bar)



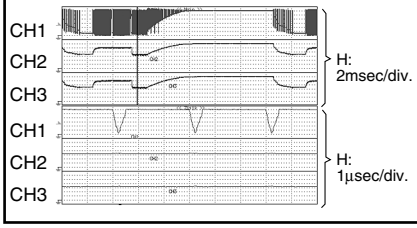
④ CH1: Q1601-pin 4 (ADR_B2)
CH2: Q1602-pin 4 (ADR_U2)
CH3: Q1602-pin 2 (ADR_D2)
V: 10V/div.
(Input: VIDEO, Signal: Color-bar)



⑤ CH1: Q1601 Drain (V+ADR)
CH2: Q1603 Source
CH3: Q1602 Source
V: 10V/div.
(Input: VIDEO, Signal: Color-bar)



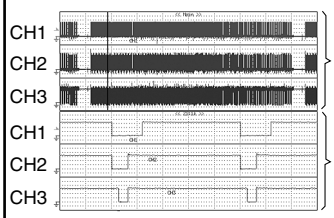
⑥ CH1: Q1601 Drain (V+ADR)
CH2: Q1603 Source
CH3: Q1602 Source
V: 10V/div.
(Input: VIDEO, Signal: B/W(1×8))



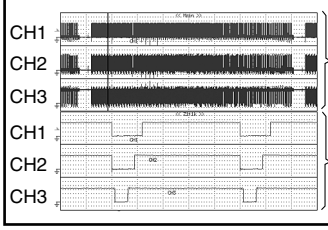
50 (43) ADDRESS ASSY

• ADR RESONANCE BLOCK (PC)

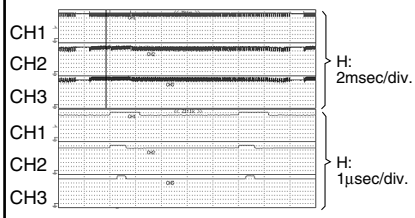
① CH1: IC1601-pin 2 (ADR_B2)
CH2: IC1603-pin 4 (ADR_U1)
CH3: IC1603-pin 2 (ADR_D1)
V: 1V/div.
(Input: PC, Signal: Color-bar)



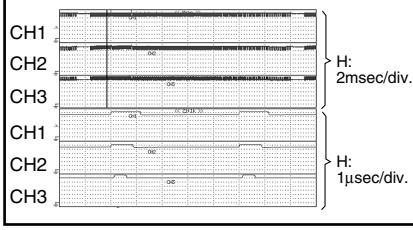
② CH1: IC1601-pin 2 (ADR_B2)
CH2: IC1602-pin 4 (ADR_U2)
CH3: IC1602-pin 2 (ADR_D2)
V: 1V/div.
(Input: PC, Signal: Color-bar)



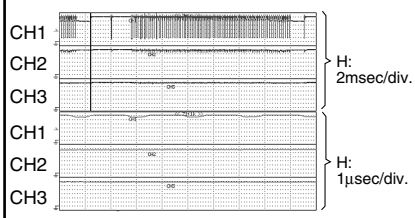
③ CH1: Q1601-pin 4 (ADR_B2)
CH2: Q1603-pin 4 (ADR_U1)
CH3: Q1603-pin 2 (ADR_D1)
V: 10V/div.
(Input: PC, Signal: Color-bar)



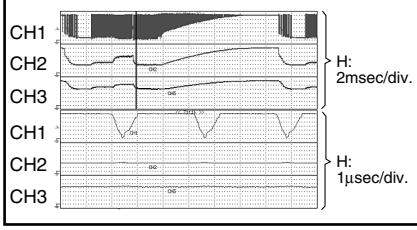
④ CH1: Q1601-pin 4 (ADR_B2)
CH2: Q1602-pin 4 (ADR_U2)
CH3: Q1602-pin 2 (ADR_D2)
V: 10V/div.
(Input: PC, Signal: Color-bar)



⑤ CH1: Q1601 Drain (V+ADR)
CH2: Q1603 Source
CH3: Q1602 Source
V: 10V/div.
(Input: PC, Signal: Color-bar)

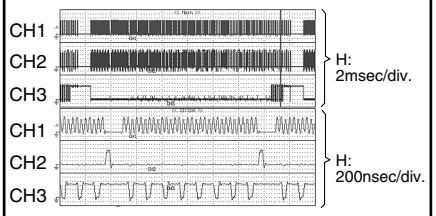


⑥ CH1: Q1601 Drain (V+ADR)
CH2: Q1603 Source
CH3: Q1602 Source
V: 10V/div.
(Input: PC, Signal: B/W(1×8))

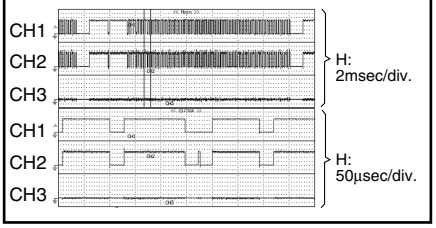


50 ADDRESS ASSY
• ADR LOGIC BLOCK

① **CH1: IC1553-pin 18 (CLK input)**
CH2: IC1553-pin 16 (LE input)
CH3: IC1553-pin 9 (DATA input)
V: 1V/div.
(Input: VIDEO, Signal: Color-bar)

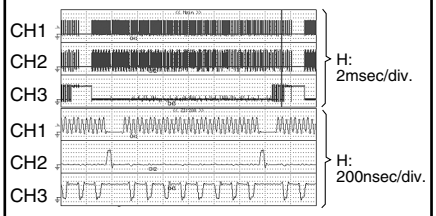


② **CH1: IC1553-pin 23 (HBLK input)**
CH2: IC1553-pin 19 (LBLK input)
CH3: IC1553-pin 25 (HZ input)
V: 1V/div.
(Input: VIDEO, Signal: Color-bar)

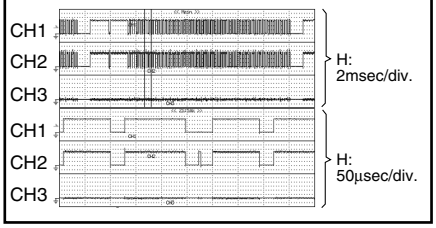


43 ADDRESS ASSY
• ADR LOGIC BLOCK

① **CH1: IC1552-pin 18 (CLK input)**
CH2: IC1552-pin 16 (LE input)
CH3: IC1552-pin 9 (DATA input)
V: 1V/div.
(Input: VIDEO, Signal: Color-bar)



② **CH1: IC1552-pin 23 (HBLK input)**
CH2: IC1552-pin 19 (LBLK input)
CH3: IC1552-pin 25 (HZ input)
V: 1V/div.
(Input: VIDEO, Signal: Color-bar)



3.3 VOLTAGES

• Voltages

CN5601 (D1)

No.	Signal Name	I/O	Signal Description	Voltages at NTSC Signal Input
1	+12V	I	+12V power input	+12VDC
2	+12V	I	+12V power input	+12VDC
3	GND_D	–	GND	
4	GND_D	–	GND	
5	PD	O	Power down signal	0VDC
6	VSUS_ADJ	O	VSUS adjustment signal	
7	PS_PD	I	Power-down detecting signal of POWER SUPPLY block	0VDC
8	RELAY	O	Relay control signal	+3.3VDC
9	DRF	O	Drive control signal	0VDC
10	AC_DET	I	Primary side power (AC) state output at panel side	+3.0VDC
11	PD_TRIGGER	I	Power down trigger	+3.3VDC

CN5602 (D2)

No.	Signal Name	I/O	Signal Description	Voltages at NTSC Signal Input
1	VADR	I	Address drive power (+61V) input	+61VDC
2	VADR	I	Address drive power (+61V) input	+61VDC
3	N.C		Not connected	
4	GND_ADR	–	GND	
5	GND_ADR	–	GND	
6	+6.5V	I	+6.5V power input	+6.8VDC
7	GND_D	–	GND	

RGB ASSY — POWER SUPPLY ASSY

R1 (CN7404)		Voltage (V)	P8	
No.	Name		Name	No.
1	V+16.5V	16.7	V+16.5V	1
2	GND	0	GND	2
3	V+12V	12.9	V+12V	3
4	V+12V	12.9	V+12V	4
5	GND	0	GND	5
6	GND	0	GND	6
7	V+6.5V	6.8	V+6.5V	7
8	V+6.5V	6.8	V+6.5V	8
9	GND	0	GND	9
10	GND	0	GND	10
11	V+3V_STB	3.3	V+3V_STB	11
12	GND	0	GND	12
13	AC_DET	2.7	AC_DET	13

RGB ASSY — AV I/O ASSY

R2 (CN6401)		Voltage (V)	AV4 (CN8705)	
No.	Name		Name	No.
1	VD_SLOT	0	VD_SLOT	1
2	HD_SLOT	0	HD_SLOT	2
3	GNDD	0	GNDD	3
4	B_SLOT	0	B_SLOT	4
5	GNDD	0	GNDD	5
6	G_SLOT	0	G_SLOT	6
7	GNDD	0	GNDD	7
8	R_ SLOT	0	R_ SLOT	8
9	VD_ IO	0	VD_ IO	9
10	HD_ IO	5	HD_ IO	10
	R13 (CN6402)			
1	GNDD	0	GNDD	11
2	B_ IO	0	B_ IO	12
3	GNDD	0	GNDD	13
4	G_ IO	0	G_ IO	14
5	GNDD	0	GNDD	15
6	R_ IO	0	R_ IO	16

RGB ASSY — COMM SLOT I/F ASSY

R3 (CN7406)		Voltage (V)	CS2 (CN8902)	
No.	Name		Name	No.
1	V+5V_STB	5.1	V+5V_STB	1
2	GND	0	GND	2
3	V+3V_STB	3.3	V+3V_STB	3
4	CYOBI1	3.3	CYOBI1	4
5	CYOBI2	0	CYOBI2	5
6	CYOBI3	0	CYOBI3	6
7	GND	0	GND	7
8	SR_OUT	4.9	SR_OUT	8
9	SLOT_ST_COM	3.3	SLOT_ST_COM	9
10	V+6V	6.8	V+6V	10
11	NC			

RGB ASSY — VIDEO SLOT I/F ASSY

R4 (CN7407)		Voltage (V)	VS1 (CN8951)	
No.	Name		Name	No.
1	GND	0	GND	1
2	GND	0	GND	2
3	V+13V	13.6	V+13V	3
4	V+13V	13.6	V+13V	4
5	V+12V	12.9	V+12V	5
6	V+12V	12.9	V+12V	6
7	GND	0	GND	7
8	V+3V_STB	3.3	V+3V_STB	8
9	GND	0	GND	9
10	V+3V_DD	3.3	V+3V_DD	10
11	V+3V_DD	3.3	V+3V_DD	11
12	GND	0	GND	12

RGB ASSY — DIGITAL VIDEO ASSY

R5 (CN7408)		Voltage (V)	D3 (CN5002)	
No.	Name		Name	No.
1	V+1V_DD	1.4	V+1V_DD	1
2	V+1V_DD	1.4	V+1V_DD	2
3	V+1V_DD	1.4	V+1V_DD	3
4	GND	0	GND	4
5	GND	0	GND	5
6	GND	0	GND	6
7	V+3V_DD	3.3	V+3V_DD	7
8	V+3V_DD	3.3	V+3V_DD	8
9	GND	0	GND	9
10	GND	0	GND	10
11	NC			
12	NC			

RGB ASSY — FAN (L), (R)

R8 (CN7402)		Voltage (V)	FAN (L)	
No.	Name		Name	No.
1	FAN_12V	0	FAN_12V	1
2	FAN_NG	3.2	FAN_NG	2
3	GND	0	GND	3
			FAN (R)	
4	FAN_12V	0	FAN_12V	1
5	FAN_NG	3.2	FAN_NG	2
6	GND	0	GND	3
7	NC			

RGB ASSY — TRAP SW (ASG1089)

R6 (CN7204)		Voltage (V)	TRAP SW (CN5801)	
No.	Name		Name	No.
1	TRAP_SW	3.3	TRAP_SW	1
2	NC	0	NC	2
3	3.3V	3.3	3.3V	3

RGB ASSY

R9 (CN5701)				
No.	Name			
AV I/O IF ASSY			AV I/O ASSY	
CN2102, AV6 (CN2101)		Voltage (V)	CN8705	
No.	Name		Name	No.
1	N.C.	0	N.C.	101
2	N.C.	0	N.C.	102
3	A_R_SLOT	6	A_R_SLOT	103
4	GND	0	GND	104
5	A_L_SLOT	6	A_L_SLOT	105
6	GND	0	GND	106
7	V+12V	12.9	V+12V	107
8	GND	0	GND	108
9	1N1_HD	4.4	1N1_HD	109
10	1N1_VD	0	1N1_VD	110
11	WE_ROM_B	0	WE_ROM_B	111
12	KEY	3.3	KEY	112
13	IO_YOBI2	3.2	IO_YOBI2	113
14	SR_OUT	5	SR_OUT	114
15	RXD_IF	3.3	RXD_IF	115
16	CLK_IF	3.3	CLK_IF	116
17	RXD_WR	3.3	RXD_WR	117
18	REQ_IF	0	REQ_IF	118
19	RST_IF	0	RST_IF	119
20	IF_CE	3.2	IF_CE	120
21	HOT_P1	0	HOT_P1	121
22	HDMI2_SDA	0	HDMI2_SDA	122
23	HDMI_INT1	3.2	HDMI_INT1	123
24	SCL_AV	3.3	SCL_AV	124
25	HDMI_AUDIO_CLK	3.2	HDMI_AUDIO_CLK	125
26	D_AUDIO_SEL	3.3	D_AUDIO_SEL	126
27	CEC2	0	CEC2	127
28	GND	0	GND	128
29	HD_DVI	0	HD_DVI	129
30	DE_DVI	0	DE_DVI	130
31	GND	0	GND	131
32	RB_DVI7	0/3.3	RB_DVI7	132
33	RB_DVI6	0/3.3	RB_DVI6	133
34	RB_DVI4	0/3.3	RB_DVI4	134
35	RB_DVI2	0/3.3	RB_DVI2	135
36	RB_DVI0	0/3.3	RB_DVI0	136
37	GB_DVI6	0/3.3	GB_DVI6	137
38	GB_DVI4	0/3.3	GB_DVI4	138
39	GB_DVI2	0/3.3	GB_DVI2	139
40	GB_DVI0	0/3.3	GB_DVI0	140
41	BB_DVI6	0/3.3	BB_DVI6	141
42	BB_DVI4	0/3.3	BB_DVI4	142
43	BB_DVI2	0/3.3	BB_DVI2	143
44	BB_DVI0	0/3.3	BB_DVI0	144
45	RA_DVI7	0/3.3	RA_DVI7	145
46	RA_DVI5	0/3.3	RA_DVI5	146
47	RA_DVI3	0/3.3	RA_DVI3	147
48	RA_DVI1	0/3.3	RA_DVI1	148
49	GND	0	GND	149
52	GA_DVI7	0/3.3	GA_DVI7	152
53	GA_DVI5	0/3.3	GA_DVI5	153
54	GA_DVI3	0/3.3	GA_DVI3	154
55	GA_DVI1	0/3.3	GA_DVI1	155
56	BA_DVI7	0/3.3	BA_DVI7	156

RGB ASSY

R9 (CN5701)				
No.	Name			
AV I/O IF ASSY			AV I/O ASSY	
CN2102, AV6 (CN2101)		Voltage (V)	CN8705	
No.	Name		Name	No.
57	BA_DVI5	0/3.3	BA_DVI5	157
58	BA_DVI3	0/3.3	BA_DVI3	158
59	GND	0	GND	159
60	V+5V_A2	5	V+5V_A2	160
61	N.C.	0	N.C.	161
62	N.C.	0	N.C.	162
101	N.C.	0	N.C.	1
102	N.C.	0	N.C.	2
103	A_MUTE	0	A_MUTE	3
104	TEMP3	0 - 3.3	TEMP3	4
105	V+6V	6.8	V+6V	5
106	GND	0	GND	6
107	V+3V_A1	3.3	V+3V_A1	7
108	GND	0	GND	8
109	V+3V_UCOM	3.3	V+3V_UCOM	9
110	GND	0	GND	10
111	V+3VSTB	3.3	V+3VSTB	11
112	IO_YOBI1	0	IO_YOBI1	12
113	PN2	0	PN2	13
114	ACTIVE	3.2	ACTIVE	14
115	TXD_IF	3.3	TXD_IF	15
116	TXD_WR	3.3	TXD_WR	16
117	AC_DET	2.6	AC_DET	17
118	IF_BUSY	0	IF_BUSY	18
119	RESET	3.3	RESET	19
120	HDMI_AUDIO_CE	3.3	HDMI_AUDIO_CE	20
121	HOT_P2	3.3	HOT_P2	21
122	HDMI2_SCL	3.3	HDMI2_SCL	22
123	SDA_AV	3.2	SDA_AV	23
124	HDMI_INT2	3.2	HDMI_INT2	24
125	HDMI_AUDIO_TXD	3.3	HDMI_AUDIO_TXD	25
126	CEC1	0	CEC1	26
127	RESETX1	3.3	RESETX1	27
128	VD_DVI	0	VD_DVI	28
129	GND	0	GND	29
130	CLK_DVI	0	CLK_DVI	30
131	GND	0	GND	31
132	GND	0	GND	32
133	RB_DVI5	0/3.3	RB_DVI5	33
134	RB_DVI3	0/3.3	RB_DVI3	34
135	RB_DVI1	0/3.3	RB_DVI1	35
136	GB_DVI7	0/3.3	GB_DVI7	36
137	GB_DVI5	0/3.3	GB_DVI5	37
138	GB_DVI3	0/3.3	GB_DVI3	38
139	GB_DVI1	0/3.3	GB_DVI1	39
140	GND	0	GND	40
141	BB_DVI6	0/3.3	BB_DVI6	41
142	BB_DVI4	0/3.3	BB_DVI4	42
143	BB_DVI2	0/3.3	BB_DVI2	43
144	BB_DVI0	0/3.3	BB_DVI0	44
145	RA_DVI6	0/3.3	RA_DVI6	45
146	RA_DVI4	0/3.3	RA_DVI4	46
147	RA_DVI2	0/3.3	RA_DVI2	47
148	RA_DVI0	0/3.3	RA_DVI0	48

RGB ASSY

R9 (CN5701)				
No.	Name			
AV I/O IF ASSY			AV I/O ASSY	
CN2102, AV6 (CN2101)		Voltage (V)	CN8705	
No.	Name		Name	No.
149	GND	0	GND	49
152	GA_DVI6	0/3.3	GA_DVI6	52
153	GA_DVI4	0/3.3	GA_DVI4	53
154	GA_DVI2	0/3.3	GA_DVI2	54
155	GA_DVI0	0/3.3	GA_DVI0	55
156	BA_DVI6	0/3.3	BA_DVI6	56
157	BA_DVI4	0/3.3	BA_DVI4	57
158	BA_DVI2	0/3.3	BA_DVI2	58
159	BA_DVI1	0/3.3	BA_DVI1	59
160	BA_DVI0	0/3.3	BA_DVI0	60
161	NC	0	NC	61
162	NC	0	NC	62

RGB ASSY VIDEO SLOT I/F ASSY

R11 (CN7410)		Voltage (V)	VS3 (CN8955)	
No.	Name		Name	No.
1	GND	0	GND	1
2	KEY	3.3	KEY	2
3	EMGREQ1_V	0	EMGREQ1_V	3
4	EMGREQ2_V	0	EMGREQ2_V	4
5	IC1V_OE	3.3	IC1V_OE	5
6	RESETX1	3.3	RESETX1	6
7	GND	0	GND	7
8	SD_SEL	3.3	SD_SEL	8
9	FNC2	0	FNC2	9
10	FNC3	0	FNC3	10
11	SOUND1	3.3	SOUND1	11
12	GND	0	GND	12
13	DSUBR	3.8	DSUBR	13
14	GND	0	GND	14
15	DSUBG	3.8	DSUBG	15
16	GND	0	GND	16
17	DSUBB	3.8	DSUBB	17
18	GND	0	GND	18
19	GND	0	GND	19
20	IN5_HD	0	IN5_HD	20
21	GND	0	GND	21
22	SOUSA_X	3.3	SOUSA_X	22
23	VYOBI1	0	VYOBI1	23
24	VYOBI2	0	VYOBI2	24
25	DSUBSW_DET	3.3	DSUBSW_DET	25
26	GND	0	GND	26
27	GND	0	GND	27
28	GND	0	GND	28
29	EMGREQ1_S	0	EMGREQ1_S	29
30	EMGREQ2_S	0	EMGREQ2_S	30
31	IC1S_OE	0	IC1S_OE	31
32	SLOT_ST3	0.4	SLOT_ST3	32
33	M_CHOICE	0	M_CHOICE	33
34	SOUND2	0	SOUND2	34
35	GND	0	GND	35
36	GND	0	GND	36
37	DSUBH	5	DSUBH	37

RGB ASSY VIDEO SLOT I/F ASSY

R11 (CN7410)		Voltage (V)	VS3 (CN8955)	
No.	Name		Name	No.
38	GND	0	GND	38
39	GND	0	GND	39
40	DSUBV	0	DSUBV	40
41	GND	0	GND	41
42	GND	0	GND	42
43	IN5_VD	3.3	IN5_VD	43
44	GND	0	GND	44
45	GND	0	GND	45
46	HYOUJI_X	0	HYOUJI_X	46
47	VYOBI4	0	VYOBI4	47
48	VYOBI5	0	VYOBI5	48
49	VYOBI6	0	VYOBI6	49
50	WE_ROM_B	0	WE_ROM_B	50

RGB ASSY VIDEO SLOT I/F ASSY

R12 (CN7405)		Voltage (V)	VS4 (CN8953)	
No.	Name		Name	No.
1	GND	0	GND	1
2	GND	0	GND	2
3	G_SLOT	0	G_SLOT	3
4	GND	0	GND	4
5	B_SLOT	0	B_SLOT	5
6	GND	0	GND	6
7	R_SLOT	0	R_SLOT	7
8	GND	0	GND	8
9	HD_SLOT	0	HD_SLOT	9
10	GND	0	GND	10
11	VD_SLOT	0	VD_SLOT	11
12	GND	0	GND	12
13	AUDIO_L_SLOT	6	AUDIO_L_SLOT	13
14	GND	0	GND	14
15	AUDIO_R_SLOT	6	AUDIO_R_SLOT	15
16	GND	0	GND	16
17	SLOT_ST1	0	SLOT_ST1	17
18	S_DIN_SEL	0	S_DIN_SEL	18
19	FNC_1	0	FNC_1	19
20	FNC_0	5	FNC_0	20
21	NC	0	NC	21
22	NC	0	NC	22
23	VD_DET	0	VD_DET	23
24	GND	0	GND	24
25	HD_DET	0	HD_DET	25
26	GND	0	GND	26
27	VD_IC1	3.2	VD_IC1	27
28	GND	0	GND	28
29	HD_IC1	3	HD_IC1	29
30	GND	0	GND	30
31	GND	0	GND	31
32	RB0_IC1	0/3.3	RB0_IC1	32
33	RB1_IC1	0/3.3	RB1_IC1	33
34	RB2_IC1	0/3.3	RB2_IC1	34
35	RB3_IC1	0/3.3	RB3_IC1	35
36	RB4_IC1	0/3.3	RB4_IC1	36
37	RB5_IC1	0/3.3	RB5_IC1	37

RGB ASSY — VIDEO SLOT I/F ASSY

R12 (CN7405)		Voltage (V)	VS4 (CN8953)	
No.	Name		Name	No.
38	RB6_IC1	0/3.3	RB6_IC1	38
39	RB7_IC1	0/3.3	RB7_IC1	39
40	GND	0	GND	40
41	GND	0	GND	41
42	GB0_IC1	0/3.3	GB0_IC1	42
43	GB1_IC1	0/3.3	GB1_IC1	43
44	GB2_IC1	0/3.3	GB2_IC1	44
45	GB3_IC1	0/3.3	GB3_IC1	45
46	GB4_IC1	0/3.3	GB4_IC1	46
47	GB5_IC1	0/3.3	GB5_IC1	47
48	GB6_IC1	0/3.3	GB6_IC1	48
49	GB7_IC1	0/3.3	GB7_IC1	49
50	GND	0	GND	50
51	GND	0	GND	51
52	BB0_IC1	0/3.3	BB0_IC1	52
53	BB1_IC1	0/3.3	BB1_IC1	53
54	BB2_IC1	0/3.3	BB2_IC1	54
55	BB3_IC1	0/3.3	BB3_IC1	55
56	BB4_IC1	0/3.3	BB4_IC1	56
57	BB5_IC1	0/3.3	BB5_IC1	57
58	BB6_IC1	0/3.3	BB6_IC1	58
59	BB7_IC1	0/3.3	BB7_IC1	59
60	GND	0	GND	60
61	GND	0	GND	61
62	GND	0	GND	62
63	SCL_VS	3.1	SCL_VS	63
64	GND	0	GND	64
65	SDA_VS	3.1	SDA_VS	65
66	GND	0	GND	66
67	GND	0	GND	67
68	GND	0	GND	68
69	NC	0	NC	69
70	GND	0	GND	70
71	NC	0	NC	71
72	GND	0	GND	72
73	NC	0	NC	73
74	GND	0	GND	74
75	NC	0	NC	75
76	NC	0	NC	76
77	IN4_DET	5	IN4_DET	77
78	IN3_DET	0	IN3_DET	78
79	SLOT_ST2	3	SLOT_ST2	79
80	SR_VS	5.1	SR_VS	80
81	NC	0	NC	81
82	3G4G	3.3	3G4G	82
83	GND	0	GND	83
84	GND	0	GND	84
85	IN5_DET	0	IN5_DET	85
86	GND	0	GND	86
87	DE_IC1	2.5	DE_IC1	87
88	GND	0	GND	88
89	CK_IC1	1.5	CK_IC1	89
90	GND	0	GND	90
91	GND	0	GND	91
92	BA7_IC1	0/3.3	BA7_IC1	92
93	BA6_IC1	0/3.3	BA6_IC1	93
94	BA5_IC1	0/3.3	BA5_IC1	94

RGB ASSY — VIDEO SLOT I/F ASSY

R12 (CN7405)		Voltage (V)	VS4 (CN8953)	
No.	Name		Name	No.
95	BA4_IC1	0/3.3	BA4_IC1	95
96	BA3_IC1	0/3.3	BA3_IC1	96
97	BA2_IC1	0/3.3	BA2_IC1	97
98	BA1_IC1	0/3.3	BA1_IC1	98
99	BA0_IC1	0/3.3	BA0_IC1	99
100	GND	0	GND	100
101	GND	0	GND	101
102	GA7_IC1	0/3.3	GA7_IC1	102
103	GA6_IC1	0/3.3	GA6_IC1	103
104	GA5_IC1	0/3.3	GA5_IC1	104
105	GA4_IC1	0/3.3	GA4_IC1	105
106	GA3_IC1	0/3.3	GA3_IC1	106
107	GA2_IC1	0/3.3	GA2_IC1	107
108	GA1_IC1	0/3.3	GA1_IC1	108
109	GA0_IC1	0/3.3	GA0_IC1	109
110	GND	0	GND	110
111	GND	0	GND	111
112	RA7_IC1	0/3.3	RA7_IC1	112
113	RA6_IC1	0/3.3	RA6_IC1	113
114	RA5_IC1	0/3.3	RA5_IC1	114
115	RA4_IC1	0/3.3	RA4_IC1	115
116	RA3_IC1	0/3.3	RA3_IC1	116
117	RA2_IC1	0/3.3	RA2_IC1	117
118	RA1_IC1	0/3.3	RA1_IC1	118
119	RA0_IC1	0/3.3	RA0_IC1	119
120	GND	0	GND	120
121	GND	0	GND	121
122	GND	0	GND	122

AV I/O ASSY — AUDIO AMP ASSY

AV1 (CN7601)		Voltage (V)	AP2 (CN5001)	
No.	Name		Name	No.
1	A_NG	3.2	A_NG	15
2	TEMP3	0-3.3	TEMP3	14
3	A_MUTE	0	A_MUTE	13
4	ST_BY	2.5	ST_BY	12
5	GND	0	GND	11
6	V+6V	6.8	V+6V	10
7	V+3V	3.3	V+3V	9
8	V+12A	12	V+12A	8
9	GND	0	GND	7
10	-R_OUT	6	-R_OUT	6
11	+R_OUT	6	+R_OUT	5
12	GND	0	GND	4
13	-L_OUT	6	-L_OUT	3
14	+L_OUT	6	+L_OUT	2
15	GND	0	GND	1

AV I/O ASSY — KEY CONTROL ASSY

AV2 (CN8702)		Voltage (V)	KY1 (CN9001)	
No.	Name		Name	No.
1	GND	0	GND	1
2	KEY	3.3	KEY	2
3	V+3VSTB	3.3	V+3VSTB	3

AV I/O ASSY — LED ASSY

AV3 (CN8703)		Voltage (V)	KY1 (CN9651)	
No.	Name		Name	No.
1	V+3STB	3.3	V+3STB	1
2	LED_ G	0	LED_ G	2
3	LED_ R	3.3	LED_ R	3
4	GND	0	GND	4
5	AC_ DET	2.6	AC_ DET	5

AV I/O ASSY — COMM SLOT I/F ASSY

AV5 (CN8704)		Voltage (V)	KY1 (CN8905)	
No.	Name		Name	No.
1	GND	0	GND	1
2	UART_SW	3.3	UART_SW	2
3	KEY	3.3	KEY	3
4	RXD	3.3	RXD	4
5	TXD	3.3	TXD	5
6	GND	0	GND	6

AUDIO AMP ASSY — POWER SUPPLY ASSY

AP1 (CN5002)		Voltage (V)	P6	
No.	Name		Name	No.
1	V+16R5	16.7	V+16R5	1
2	V+16R5	16.7	V+16R5	2
3	GNDP	0	GNDP	3
4	GNDP	0	GNDP	4
5	GNDP	0	GNDP	5
6	GNDP	0	GNDP	6

AUDIO AMP ASSY — SP TERMINAL R ASSY

AP3 (CN5003)		Voltage (V)	SP2 (CN9801)	
No.	Name		Name	No.
1	GND	0	GND	1
2	R+	5.3	R+	2
3	R-	5.2	R-	3
			SP TERMINAL L ASSY	
			SP1 (CN9702)	
4	STBGND	0	STBGND	1
5	TEMP3	0-3.3	TEMP3	2
6	V+3VDD	3.3	V+3VDD	3
7	GND	0	GND	4
8	L+	5.3	L+	5
9	L-	5.2	L-	6

COMM SLOT I/F ASSY — IR ASSY

CS4 (CN8901)		Voltage (V)	RE1 (CN4901)	
No.	Name		Name	No.
1	V+3STB	3.3	V+3STB	1
2	GND	0	GND	2
3	SR	0	SR	3
4	GND	0	GND	4

COMM SLOT I/F ASSY — COMM SLOT ASSY

CS5 (CN8904)		Voltage (V)	CN9454	
No.	Name		Name	No.
1	NC	0	NC	1
2	IRSW	0	IRSW	2
3	IR_COMM_OUT	4.9	IR_COMM_OUT	3
4	IR_COMM_IN	4.9	IR_COMM_IN	4
5	GND	0	GND	5
6	GND	0	GND	6
7	GND	0	GND	7
8	CYOBI3	0	CYOBI3	8
9	CYOBI2	0	CYOBI2	9
10	CSL_ST2	3.3	CSL_ST2	10
11	CSL_ST1	3.3	CSL_ST1	11
12				12
13				13
14	GND	0	GND	14
15	GND	0	GND	15
16	FIRST_RXD	3.3	FIRST_RXD	16
17	GET_UART	3.3	GET_UART	17
18	INT_EXT	3.3	INT_EXT	18
19	RXD_CARD	0	RXD_CARD	19
20	TXD_CARD	0	TXD_CARD	20
21	GPC5	0	GPC5	21
22	GPC4	0	GPC4	22
23	GPC3	0	GPC3	23
24	GPC2	0	GPC2	24
25	GPC1	0	GPC1	25
101	NC	0	NC	101
102	GND	0	GND	102
103	GND	0	GND	103
104	GND	0	GND	104
105	TXD_PDP	3.3	TXD_PDP	105
106	RXD_PDP	3.3	RXD_PDP	106
107	KEY_COMM_IN	3.3	KEY_COMM_IN	107
108	UART_SW	3.3	UART_SW	108
109	GND	0	GND	109
110	GND	0	GND	110
111	GND	0	GND	111
114	V+6.5V	6.8	V+6.5V	114
115	V+6.5V	6.8	V+6.5V	115
116	GND	0	GND	116
117	GND	0	GND	117
118	V+3VSTB	3.3	V+3VSTB	118
119	V+3VSTB	3.3	V+3VSTB	119
120	NC	0	NC	120
121	NC	0	NC	121
122	NC	0	NC	122
123	NC	0	NC	123
124	V+5VSTB	5	V+5VSTB	124
125	V+5VSTB	5	V+5VSTB	125

COMM SLOT I/F ASSY

CS3 (CN8903)		Voltage (V)	VS2 (CN8952)	
No.	Name		Name	No.
1	GND	0	GND	1
2	FIRST_RXD	3.3	FIRST_RXD	2
3	GET_UART	3.3	GET_UART	3
4	INT_EXT	3.3	INT_EXT	4
5	RXD_GU	0	RXD_GU	5
6	TXD_GU	0	TXD_GU	6
7	GPC5	0	GPC5	7
8	GPC4	0	GPC4	8
9	GPC3	0	GPC3	9
10	GPC2	0	GPC2	10
11	GPC1	0	GPC1	11

VIDEO SLOT I/F ASSY VIDEO SLOT 2 ASSY

VS5 (CN8954)		Voltage (V)	CN7902	
No.	Name		Name	No.
1	GND	0	GND	1
2	GND	0	GND	2
3	G_SLOT	0	G_SLOT	3
4	GND	0	GND	4
5	B_SLOT	0	B_SLOT	5
6	GND	0	GND	6
7	R_SLOT	0	R_SLOT	7
8	GND	0	GND	8
9	HD_SLOT	0	HD_SLOT	9
10	GND	0	GND	10
11	VD_SLOT	0	VD_SLOT	11
12	GND	0	GND	12
13	AUDIO_L_SLOT	6	AUDIO_L_SLOT	13
14	GND	0	GND	14
15	AUDIO_R_SLOT	6	AUDIO_R_SLOT	15
16	GND	0	GND	16
17	SLOT_ST1	0	SLOT_ST1	17
18	S_DIN_SEL	0	S_DIN_SEL	18
19	FNC_1	0	FNC_1	19
20	FNC_0	5	FNC_0	20
21	V+3.3V	3.2	V+3.3V	21
22	V+3.3V	3.2	V+3.3V	22
23	VD_DET	0	VD_DET	23
24	GND	0	GND	24
25	HD_DET	0	HD_DET	25
26	GND	0	GND	26
27	VD	0	VD	27
28	GND	0	GND	28
29	HD	0	HD	29
30	GND	0	GND	30
31	GND	0	GND	31
32	RB0_IC1	0/3.3	RB0_IC1	32
33	RB1_IC1	0/3.3	RB1_IC1	33
34	RB2_IC1	0/3.3	RB2_IC1	34
35	RB3_IC1	0/3.3	RB3_IC1	35
36	RB4_IC1	0/3.3	RB4_IC1	36
37	RB5_IC1	0/3.3	RB5_IC1	37
38	RB6_IC1	0/3.3	RB6_IC1	38
39	RB7_IC1	0/3.3	RB7_IC1	39
40	GND	0	GND	40
41	GND	0	GND	41
42	GB0_IC1	0/3.3	GB0_IC1	42

VIDEO SLOT I/F ASSY VIDEO SLOT 2 ASSY

VS5 (CN8954)		Voltage (V)	CN7902	
No.	Name		Name	No.
43	GB1_IC1	0/3.3	GB1_IC1	43
44	GB2_IC1	0/3.3	GB2_IC1	44
45	GB3_IC1	0/3.3	GB3_IC1	45
46	GB4_IC1	0/3.3	GB4_IC1	46
47	GB5_IC1	0/3.3	GB5_IC1	47
48	GB6_IC1	0/3.3	GB6_IC1	48
49	GB7_IC1	0/3.3	GB7_IC1	49
50		–		50
51		–		51
52	GND	0	GND	52
53	GND	0	GND	53
54	BB0_IC1	0/3.3	BB0_IC1	54
55	BB1_IC1	0/3.3	BB1_IC1	55
56	BB2_IC1	0/3.3	BB2_IC1	56
57	BB3_IC1	0/3.3	BB3_IC1	57
58	BB4_IC1	0/3.3	BB4_IC1	58
59	BB5_IC1	0/3.3	BB5_IC1	59
60	BB6_IC1	0/3.3	BB6_IC1	60
61	BB7_IC1	0/3.3	BB7_IC1	61
62	GND	0	GND	62
63				63
64				64
65	GND	0	GND	65
66	GND	0	GND	66
67	KEY	3.3	KEY	67
68	NC	0	NC	68
69	TXD_CARD	0	TXD_CARD	69
70	RXD_CARD	0	RXD_CARD	70
71	INT_EXT	3.3	INT_EXT	71
72	NC	0	NC	72
73	EMGREQ1_V	0	EMGREQ1_V	73
74	EMGREQ2_V	0	EMGREQ2_V	74
75	IC1V_OE	3.3	IC1V_OE	75
76	RESETX1	3.3	RESETX1	76
77	NC	0	NC	77
78	SD_SEL	3.3	SD_SEL	78
79	FNC2	0	FNC2	79
80	FNC3	0	FNC3	80
81	SOUND1	3.3	SOUND1	81
82	GND	0	GND	82
83	DSUBR	3.8	DSUBR	83
84	GND	0	GND	84
85	DSUBG	3.8	DSUBG	85
86	GND	0	GND	86
87	DSUBB	3.8	DSUBB	87
88	GND	0	GND	88
89	IN5_HD	0	IN5_HD	89
90	SOUSA_X	3.3	SOUSA_X	90
91	GPC1	0	GPC1	91
92	GPC2	0	GPC2	92
93	GPC5	0	GPC5	93
94	VYOBI1	0	VYOBI1	94
95	VYOBI2	0	VYOBI2	95
96	DSUBSW_DET	3.3	DSUBSW_DET	96
101	GND	0	GND	101
102	GND	0	GND	102
103	GND	0	GND	103

VIDEO SLOT I/F ASSY　　VIDEO SLOT 2 ASSY

VS5 (CN8954)		Voltage (V)	CN7902	
No.	Name		Name	No.
104	SCL_VS	3.1	SCL_VS	104
105	GND	0	GND	105
106	SDA_VS	3.1	SDA_VS	106
107	GND	0	GND	107
108	GND	0	GND	108
109	GND	0	GND	109
110	V+12V	12.9	V+12V	110
111	GND	0	GND	111
112	NC	0	NC	112
113	GND	0	GND	113
114	V+3.3STB	3.3	V+3.3STB	114
115	V+13.5	13.6	V+13.5	115
116	V+13.5	13.6	V+13.5	116
117	IN4_DET	5	IN4_DET	117
118	IN3_DET	0	IN3_DET	118
119	SLOT_ST2	3	SLOT_ST2	119
120	IR	5.1	IR	120
121	NC	0	NC	121
122	NC	0	NC	122
123	GND	0	GND	123
124	GND	0	GND	124
125	3G4G	3.3	3G4G	125
126	IN5_DET	0	IN5_DET	126
127	GND	0	GND	127
128	DE	2.5	DE	128
129	GND	0	GND	129
130	CLK	1.5	CLK	130
131	GND	0	GND	131
132	BA7_IC1	0/3.3	BA7_IC1	132
133	BA6_IC1	0/3.3	BA6_IC1	133
134	BA5_IC1	0/3.3	BA5_IC1	134
135	BA4_IC1	0/3.3	BA4_IC1	135
136	BA3_IC1	0/3.3	BA3_IC1	136
137	BA2_IC1	0/3.3	BA2_IC1	137
138	BA1_IC1	0/3.3	BA1_IC1	138
139	BA0_IC1	0/3.3	BA0_IC1	139
140	GND	0	GND	140
141	GND	0	GND	141
142	GA7_IC1	0/3.3	GA7_IC1	142
143	GA6_IC1	0/3.3	GA6_IC1	143
144	GA5_IC1	0/3.3	GA5_IC1	144
145	GA4_IC1	0/3.3	GA4_IC1	145
146	GA3_IC1	0/3.3	GA3_IC1	146
147	GA2_IC1	0/3.3	GA2_IC1	147
148	GA1_IC1	0/3.3	GA1_IC1	148
149	GA0_IC1	0/3.3	GA0_IC1	149
150				150
151				151
152	GND	0	GND	152
153	GND	0	GND	153
154	RA7_IC1	0/3.3	RA7_IC1	154
155	RA6_IC1	0/3.3	RA6_IC1	155
156	RA5_IC1	0/3.3	RA5_IC1	156
157	RA4_IC1	0/3.3	RA4_IC1	157
158	RA3_IC1	0/3.3	RA3_IC1	158
159	RA2_IC1	0/3.3	RA2_IC1	159
160	RA1_IC1	0/3.3	RA1_IC1	160

VIDEO SLOT I/F ASSY　　VIDEO SLOT 2 ASSY

VS5 (CN8954)		Voltage (V)	CN7902	
No.	Name		Name	No.
161	RA0_IC1	0/3.3	RA0_IC1	161
162	GND	0	GND	162
163				163
164				164
165	GND	0	GND	165
166	GND	0	GND	166
167	VSEPSCL	3.3	VSEPSCL	167
168	VSEPSDA	3.3	VSEPSDA	168
169	NC	0	NC	169
170	GET_UART	3.3	GET_UART	170
171	FIRST_RXD	3.3	FIRST_RXD	171
172	NC	0	NC	172
173	EMGREQ1_S	0	EMGREQ1_S	173
174	EMGREQ2_S	0	EMGREQ2_S	174
175	IC1S_OE	0	IC1S_OE	175
176	NC	0	NC	176
177	NC	0	NC	177
178	NC	0	NC	178
179	SLOT_ST3	0.4	SLOT_ST3	179
180	M_CHOICE	0	M_CHOICE	180
181	SOUND2	0	SOUND2	181
182	GND	0	GND	182
183	GND	0	GND	183
184	DSUBH	5	DSUBH	184
185	GND	0	GND	185
186	DSUBV	0	DSUBV	186
187	GND	0	GND	187
188	GND	0	GND	188
189	IN5_VD	3.3	IN5_VD	189
190	HYOUJI_X	0	HYOUJI_X	190
191	GPC3	0	GPC3	191
192	GPC4	0	GPC4	192
193	NC	0	NC	193
194	VYOBI4	0	VYOBI4	194
195	VYOBI5	0	VYOBI5	195
196	VYOBI6	0	VYOBI6	196

KEY CONTROL ASSY　　FRONT KEY ASSY

KY2 (CN9002)		Voltage (V)	KY4 (CN9400)	
No.	Name		Name	No.
1	D7	0/3.3	D7	1
2	D6	0/3.3	D6	2
3	D5	0/3.3	D5	3
4	G0	0/3.3	G0	4
5	G1	0/3.3	G1	5
6	G2	0/3.3	G2	6

5. PCB PARTS LIST

NOTES: ● *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
● *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
● *When ordering resistors, first convert resistance values into code form as shown in the following examples.*
Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω	→	*56 x 10^1*	→ *561*	*RD1/4PU 5 6 1 J*
47k Ω	→	*47 x 10^3*	→ *473*	*RD1/4PU 4 7 3 J*
0.5 Ω	→	*R50*		*RN2H R 5 0 K*
1 Ω	→	*1R0*		*RS1P 1 R 0 K*

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω	→	*562 x 10^1*	→ *5621*	*RN1/4PC 5 6 2 1 F*

LIST OF ASSEMBLIES for PDP-5004, PDP-5014 models

Mark	No.	Description	Part No.
NSP	1	50 ADDRESS ASSY	AWV2121
NSP	2	50 ADDRESS ASSY	AWZ6839
NSP	1	50 SCAN FUKUGO ASSY	AWV2036
NSP	2	50 SCAN A ASSY	AWZ6809
NSP	2	50 SCAN B ASSY	AWZ6810
NSP	2	X CONNECTOR A ASSY	AWZ6811
NSP	2	X CONNECTOR B ASSY	AWZ6812
NSP	1	50 X DRIVE ASSY	AWV2143
	2	PANEL SENSOR ASSY	AWZ6795
	2	50 X DRIVE ASSY	AWZ6959
	1	50 Y DRIVE ASSY	AWV2144
NSP	1	CM RGB ASSY	AWV2150
	2	RGB ASSY	AWZ6961
NSP	1	CMS FUKUGO ASSY(PDP-5004)	AWV2151
NSP	1	CMB FUKUGO ASSY(PDP-5014)	AWV2152
	2	AUDIO AMP ASSY	AWZ6848
	2	VIDEO SLOT I/F ASSY	AWZ6851
	2	IR RECEIVE ASSY	AWZ6855
	2	SP TERMINAL L ASSY	AWZ6856
	2	SP TERMINAL R ASSY	AWZ6857
	2	COVER ASSY	AWZ6858
	2	AV I/O I/F ASSY	AWZ6859
	2	COMM SLOT I/F ASSY	AWZ6964
	2	LED ASSY	AWZ6966
	2	AV I/O ASSY (PDP-5004)	AWZ6967
	2	AV I/O ASSY (PDP-5014)	AWZ6971
	2	COMM SLOT ASSY	AWZ6968
	2	KEY CONTROL ASSY	AWZ6969
	2	FRONT KEY ASSY	AWZ6970
	1	DIGITAL VIDEO ASSY	AWV2100
	1	VIDEO SLOT2 ASSY	AWV2159

LIST OF ASSEMBLIES for PDP-4304, PDP-4314 models

Mark	No.	Description	Part No.
NSP	1	43 ADDRESS ASSY	AWV2120
NSP	2	43 ADDRESS ASSY	AWZ6793
NSP	1	43 SCAN FUKUGO ASSY	AWV2023
NSP	2	43 SCAN A ASSY	AWZ6796
NSP	2	43 SCAN B ASSY	AWZ6797
NSP	2	X CONNECTOR A ASSY	AWZ6798
NSP	2	X CONNECTOR B ASSY	AWZ6799
NSP	1	43 X DRIVE ASSY	AWV2021
	2	PANEL SENSOR ASSY	AWZ6795
	2	43 X DRIVE ASSY	AWZ6840
	1	43 Y DRIVE ASSY	AWV2022
NSP	1	CM RGB ASSY	AWV2150
	2	RGB ASSY	AWZ6961
NSP	1	CMS FUKUGO ASSY(PDP-4304)	AWV2151
NSP	1	CMB FUKUGO ASSY(PDP-4314)	AWV2152
	2	AUDIO AMP ASSY	AWZ6848
	2	VIDEO SLOT I/F ASSY	AWZ6851
	2	IR RECEIVE ASSY	AWZ6855
	2	SP TERMINAL L ASSY	AWZ6856
	2	SP TERMINAL R ASSY	AWZ6857
	2	COVER ASSY	AWZ6858
	2	AV I/O I/F ASSY	AWZ6859
	2	COMM SLOT I/F ASSY	AWZ6964
	2	LED ASSY	AWZ6966
	2	AV I/O ASSY (PDP-4304)	AWZ6967
	2	AV I/O ASSY (PDP-4314)	AWZ6971
	2	COMM SLOT ASSY	AWZ6968
	2	KEY CONTROL ASSY	AWZ6969
	2	FRONT KEY ASSY	AWZ6970
	1	DIGITAL VIDEO ASSY	AWV2100
	1	VIDEO SLOT2 ASSY	AWV2159

CONTRAST OF PCB ASSEMBLIES

AV I/O ASSY

AWZ6967 and AWZ6971 are constructed the same except for the following :

Mark	No. Description	AWZ6967	AWZ6971
	[IF UCOM BLOCK]		
	R8743	RS1/16S103J	Not used
	R8744	Not used	RS1/16S103J

PCB PARTS LIST for PDP-5004, PDP-5014 models

Mark	No.	Description	Part No.

50 ADDRESSASSY

[50 ADR LOGICBLOCK]

SEMICONDUCTORS

	IC1501	PEE001B

COILS AND FILTERS

	F1501-F1503	ATF1194

CAPACITORS

	C1553, C1556, C1559, C1560, C1563	ACG1105
	C1501, C1502	ACH1357
	C1503-C1507, C1552, C1555, C1558	CKSSYF104Z16
	C1561, C1564	CKSSYF104Z16

RESISTORS

	R1510, R1519, R1522, R1526	RAB4C470J
	R1513-R1518	RS1/16SS470J
	R1505-R1509	RS1/16SS1000F
	Other Resistors	RS1/16S###J

OTHERS

	CN1501 40P FFC CONNECTOR	AKM1215

[50 ADR RESONANCE BLOCK]

SEMICONDUCTORS

	IC1601-IC1603	TND304S
	Q1604	2SA1163
	Q1601	HAT1081R
	Q1602, Q1603	HAT3019R
	D1601	1SS302
	D1608, D1609, D1617, D1618	EC10UA20
	D1610, D1611, D1616, D1619, D1620	EC11FS2
	D1604, D1612	MA126
	D1602, D1606, D1607, D1614, D1615	UDZS15B
	D1621, D1622	UDZS24B

COILS AND FILTERS

	L1601, L1602	ATH1135

CAPACITORS

	C1609, C1615 (0.47microF)	ACE1172
	C1605, C1607, C1608, C1613, C1614 (0.01microF/100V)	ACG1101
	C1618	ACH1357
	C1603 (47microF/16V)	ACH1391
	C1601, C1602 (56microF/80V)	ACH1405
	C1604, C1606, C1612	CKSSYF104Z16

RESISTORS

	R1631	ACN1174
	R1633	RS1/16S1202F
	R1632	RS1/16S1502F
	Other Resistors	RS1/16S###J

50 SCAN A ASSY

SEMICONDUCTORS

	IC3001-IC3006	AN16003A
	D3001	KU10N16

CAPACITORS

	C3001, C3002, C3012, C3013 (0.1microF/250V)	ACG1088
	C3023, C3024, C3034, C3035 (0.1microF/250V)	ACG1088
	C3045, C3046, C3056, C3057 (0.1microF/250V)	ACG1088
	C3005, C3008, C3016, C3019, C3026	CCSRCH101J50
	C3029, C3037, C3040, C3048, C3051	CCSRCH101J50
	C3060, C3063	CCSRCH101J50
	C3004	CCSRCH151J50
	C3007, C3018, C3033, C3044, C3050	CCSRCH181J50
	C3062	CCSRCH181J50
	C3006, C3011, C3017, C3022	CCSRCH331J50
	C3031, C3032, C3042, C3043, C3049	CCSRCH331J50
	C3055, C3061, C3066	CCSRCH331J50
	C3009, C3010, C3020, C3021, C3028	CCSRCH390J50
	C3030, C3039, C3041, C3053, C3054	CCSRCH390J50
	C3064, C3065	CCSRCH390J50
	C3003, C3014, C3025, C3036, C3047	CKSRYB105K6R3
	C3058	CKSRYB105K6R3

RESISTORS

	R3003, R3011, R3017, R3025, R3030	RAB4C221J
	R3036	RAB4C221J
	Other Resistors	RS1/16S###J

OTHERS

	CN3001 15P CONNECTOR	AKP1218
	K3001, K3004, K3009, K3015, K3017 TEST PIN	AKX9002
	K3019, K3021 TEST PIN	AKX9002

50 SCAN B ASSY

SEMICONDUCTORS

	IC3201-IC3206	AN16003A
	D3201	KU10N16

CAPACITORS

	C3201, C3211, C3212, C3222, C3223 (0.1microF/250V)	ACG1088
	C3233, C3234, C3244, C3245 (0.1microF/250V)	ACG1088
	C3255, C3256, C3266 (0.1microF/250V)	ACG1088
	C3203, C3204, C3214, C3215, C3226	CCSRCH101J50
	C3228, C3237, C3239, C3247, C3251	CCSRCH101J50
	C3258, C3259	CCSRCH101J50
	C3262	CCSRCH151J50
	C3206, C3217, C3232, C3243, C3249	CCSRCH181J50
	C3261	CCSRCH181J50
	C3205, C3210, C3216, C3221	CCSRCH331J50
	C3230, C3231, C3241, C3242, C3248	CCSRCH331J50
	C3254, C3260, C3265	CCSRCH331J50
	C3208, C3209, C3219, C3220, C3227	CCSRCH390J50
	C3229, C3238, C3240, C3252, C3253	CCSRCH390J50
	C3263, C3264	CCSRCH390J50
	C3202, C3213, C3224, C3235, C3246	CKSRYB105K6R3
	C3257	CKSRYB105K6R3

RESISTORS

	R3202, R3210, R3216, R3224, R3229	RAB4C221J
	R3235	RAB4C221J
	Other Resistors	RS1/16S###J

Mark No.	Description	Part No.
OTHERS		
	CN3201 15P CONNECTOR	AKP1218
	K3203, K3208, K3214, K3216, K3218 TEST PIN	AKX9002
	K3220, K3221 TEST PIN	AKX9002

X CONNECTOR A ASSY

This assembly has no service part.

X CONNECTOR B ASSY

This assembly has no service part.

50 X DRIVE ASSY

[50 X LOGIC BLOCK]

Mark No.	Description	Part No.
SEMICONDUCTORS		
	IC1002	TC74ACT540FT
	IC1001	TC74ACT541FT
	IC1003	TC74VHC08FT
CAPACITORS		
	C1001	CEHAT470M25
	C1002-C1004	CKSRYB104K16
RESISTORS		
	R1001, R1002, R1005	RAB4C470J
	R1003, R1004, R1007	RAB4C472J
OTHERS		
	CN1001 30P FFC CONNECTOR	AKM1218

[50 X RESONANCE BLOCK]

Mark No.	Description	Part No.
SEMICONDUCTORS		
	IC1103	BA10393F
	IC1101, IC1102	TND506MD
	Q1113	2SC2412K
	Q1102, Q1103, Q1111, Q1112	2SK3560
	Q1105, Q1106, Q1108, Q1109	2SK3723
	Q1101, Q1104, Q1107, Q1110	CPH5506
	D1109, D1122	1SS302
	D1131, D1132	1SS355
	D1101, D1102, D1104, D1105	EC11FS4
	D1107, D1108, D1111, D1114-D1117	EC11FS4
	D1120, D1121, D1127, D1128	EC11FS4
	D1103, D1118, D1124, D1125, D1130	FCU20A30
	D1113, D1129	RF2001T3D
	D1110, D1123	UDZS16B
COILS AND FILTERS		
	L1103, L1105	ATH1119
	L1104	ATH1155
	L1102	ATH1156
	L1101	LFEA470J
CAPACITORS		
	C1112-C1114, C1125-C1127	ACE1168
	C1111, C1124 (100pF/630V)	ACG1104
	C1109, C1119 (0.1microF/630V)	ACG1108
	C1101, C1105, C1116, C1117	CCSRCH331J50
	C1128, C1130-C1132	CKSRYB104K16
	C1102, C1118	CKSRYB105K6R3
	C1104, C1108, C1115, C1122	CKSYB105K25
RESISTORS		
	R1116, R1122	RS1/10S1003F
	R1133, R1143-R1145	RS1/10S100J
	R1103, R1106, R1110, R1111	RS1/10S2R2J
	R1118, R1119, R1123, R1126, R1153	RS1/10S2R2J
	R1136	RS1/16S1202F
	R1139	RS1/16S3301F
	R1130	RS1/16S5601F
	R1134	RS1/16S8201F
	R1113, R1128	RS1MMF101J
	VR1101-VR1104	CCP1390
	Other Resistors	RS1/16S###J
OTHERS		
	3301 SPACER	AEH1075
	3501 SCREW	PMH30P080FMC

[50 X SUS BLOCK]

Mark No.	Description	Part No.
SEMICONDUCTORS		
	IC1202	HCPL-M611
	IC1205	NJM2872F05
	IC1203, IC1207	STK795-512
	IC1208	TLP181(P-GR)
	IC1204, IC1206	TND301S
	Q1207	2SC2412K
	Q1203	2SD1898
	Q1302	2SJ522
	Q1301	2SK2503
	Q1205	2SK3116-Z
	Q1206, Q1208	DTC124EK
	Q1201	HN1B04FU
	D1212	1SS302
	D1211, D1213, D1216	1SS355
	D1201, D1207	EC10QS04
	D1204, D1301	EC11FS4
	D1214	EC8FS6
	D1208	UDZS5.6B
COILS AND FILTERS		
	L1204, L1205	ATH1112
	L1202	LFEA100J
	L1203, L1206	LFEA470J
CAPACITORS		
	C1214-C1217, C1227-C1230	ACE1163
	C1233	ACE1169
	C1244	ACE1170
	C1209 (0.1microF/630V)	ACG1092
	C1219, C1231	ACH1358
	C1224	CEHAT101M16
	C1301	CEHAT221M25
	C1203, C1207, C1210, C1220, C1223	CEHAT470M25
	C1238, C1239	CEHAT470M25
	C1235	CKSRYB102K50
	C1213, C1225, C1240, C1241, C1243	CKSRYB104K16
	C1202, C1205, C1206, C1212, C1302	CKSRYF104Z50
RESISTORS		
	R1230	ACN1166
	R1208, R1321, R1322	ACN1174
	R1304	ACN1195

Mark No.	Description	Part No.
	R1305	ACN1198
	R1301, R1302, R1314	RS1/10S122J
A	R1226, R1251	RS1MMF331J
	R1235, R1236	RS2MMF121J
	Other Resistors	RS1/16S###J
	OTHERS	
	KN1201-KN1205, KN1208-KN1214 GROUND PLATE	ANK-142
	CN1201 12P TOP POST	B12B-EH
	[50 X D-D CON BLOCK]	
	SEMICONDUCTORS	
B	IC1404	AN1431M
	IC1402	MIP161
	IC1401, IC1403	TLP181(P-GR)
	Q1401	2SA1037K
	Q1402	2SC2412K
	D1407, D1408	EC11FS2
	D1404	EC8FS6
	D1401, D1403	UDZS5.6B
	COILS AND FILTERS	
	L1401	ATH1110
	T1401	ATK1153
C	**CAPACITORS**	
	C1401, C1402	ACH1361
	C1404	CEHAT101M16
	C1405	CEHAT101M25
	C1409	CEHAT331M16
	C1403, C1407, C1408, C1411	CKSRYB104K16
	C1406	CKSRYF104Z50
	RESISTORS	
	R1405, R1406, R1408-R1410, R1414	RS1/10S3602F
	R1420	RS1/16S1101F
D	R1403	RS1/16S2702F
	R1401, R1404	RS1/16S4701F
	R1417	RS1/16S7500F
	VR1401	CCP1390
	Other Resistors	RS1/16S###J
	OTHERS	
	1002 CARD SPACER	AEC1957
	1001 DRIVE SIRICON SHEET	AEH1062
	1001 PLATE X	ANG2622
	1001 DRIVE HEATSINK A	ANH1613
E	1001 SCREW	BMZ30P080FZK
	1002 SCREW	PMB30P060FNI

PANEL SENSOR ASSY

	SEMICONDUCTORS	
	IC1072	MM1522XU
	IC1071	MM3012XN
	CAPACITORS	
	C1075	ACH1357
F	C1074	CKSRYB103K50
	C1071, C1076	CKSRYB104K16
	C1072, C1073	CKSRYF105Z10

Mark No.	Description	Part No.
	RESISTORS	
	R1076, R1078	RS1/16S1001F
	Other Resistors	RS1/16S###J

50 Y DRIVE ASSY

	[50 Y LOGIC BLOCK]	
	SEMICONDUCTORS	
	IC2002	TC74ACT540FT
	IC2001, IC2003	TC74ACT541FT
	IC2005	TC74VHC08FT
	IC2004	TC74VHC541FT
	Q2001	DTC124EK
	CAPACITORS	
	C2001	CEHAT470M16
	C2010, C2011	CKSRYB104K16
	C2002-C2006	CKSRYF104Z50
	RESISTORS	
	R2018, R2019	RAB4C102J
	R2002, R2004, R2013-R2015	RAB4C470J
	R2005, R2006, R2012, R2016, R2017	RAB4C472J
	Other Resistors	RS1/16S###J
	OTHERS	
	CN2001	AKM1201
	[50 Y RESONANCE BLOCK]	
	SEMICONDUCTORS	
	IC2211	BA10393F
	IC2201, IC2202	TND506MD
	Q2213	2SC2412K
	Q2202, Q2211, Q2212, Q2214	2SK3560
	Q2205, Q2206, Q2208, Q2209	2SK3723
	Q2201, Q2204, Q2207, Q2210	CPH5506
	D2209, D2223	1SS302
	D2230, D2232	1SS355
	D2202-D2205, D2207, D2208	EC11FS4
	D2213, D2214, D2216-D2219, D2222	EC11FS4
	D2226, D2227	EC11FS4
	D2201, D2206, D2211, D2220, D2229	FCU20A30
	D2215, D2228	RF2001T3D
	D2210, D2224	UDZS16B
	COILS AND FILTERS	
	L2203, L2205 CHOKE COIL	ATH1119
	L2204 CHOKE COIL	ATH1155
	L2202 CHOKE COIL	ATH1156
	L2201	LFEA470J
	CAPACITORS	
	C2212-C2214, C2225-C2227	ACE1168
	C2211, C2224 (100pF/630V)	ACG1104
	C2210, C2223 (0.1microF/630V)	ACG1108
	C2202, C2205, C2216, C2217	CCSRCH331J50
	C2230, C2232, C2233, C2235	CKSRYB104K16
	C2203, C2218	CKSRYB105K6R3
	C2201, C2208, C2215, C2219	CKSYB105K25
	RESISTORS	
	R2240, R2241	RS1/10S1003F
	R2244-R2247	RS1/10S100J

Mark No.	Description	Part No.
	R2204, R2205, R2211, R2213	RS1/10S2R2J
	R2220, R2221, R2224, R2228, R2253	RS1/10S2R2J
	R2234	RS1/16S1202F
	R2235	RS1/16S3301F
	R2233	RS1/16S5601F
	R2242	RS1/16S8201F
	R2215, R2230	RS1MMF101J
	VR2201-VR2204	CCP1390
	Other Resistors	RS1/16S###J
OTHERS		
	3301 SPACER	AEH1075
	3501 SCREW	PMH30P080FMC
[50 Y SUS BLOCK]		
SEMICONDUCTORS		
	IC2302, IC2308	HCPL-M611
	IC2305	NJM2872F05
	IC2303, IC2307	STK795-513
	IC2301, IC2304, IC2309	TND301S
	Q2310	2SC2412K
	Q2303, Q2307	2SD1898
	Q2301	2SJ522
	Q2302, Q2308, Q2312	2SK3325-Z
	Q2309	HN1B04FU
	D2302	1SS302
	D2319, D2320	EC10QS04
	D2305	EC11FS4
	D2301	UDZS16B
	D2306, D2318	UDZS5.6B
COILS AND FILTERS		
	L2306, L2307	ATH1112
	L2304	LFEA100J
	L2308	LFEA101J
	L2301, L2302, L2305	LFEA470J
CAPACITORS		
	C2309-C2312, C2326, C2327	ACE1163
	C2329, C2330	ACE1163
	C2314	ACE1165
	C2302	ACG1092
	C2316, C2331	ACH1358
	C2303	ACH1361
	C2336	ACH1393
	C2306, C2334	CEHAT221M25
	C2308, C2324, C2339, C2340	CEHAT470M16
	C2304, C2320, C2338	CEHAT470M25
	C2305, C2322, C2323, C2325, C2333	CKSRYB104K16
	C2341	CKSRYB104K16
	C2301, C2307, C2328	CKSRYF104Z50
RESISTORS		
	R2332	ACN1166
	R2364, R2365	ACN1174
	R2309	RS1MMF132J
	R2310, R2311	RS1MMF472J
	R2312-R2314, R2322, R2323	RS3LMF100J
	R2348, R2352, R2358, R2359	RS3LMF1R8J
	Other Resistors	RS1/16S###J

Mark No.	Description	Part No.
OTHERS		
	KN2301-KN2305, KN2310-KN2312	ANK-142
	KN2314-KN2316 GROUND PLATE	ANK-142
	CN2301 11P TOP POST	B11B-EH
[50 Y SCAN BLOCK]		
SEMICONDUCTORS		
	IC2101, IC2103-IC2106,IC2108,IC2109	HCPL-M611
	IC2102, IC2107	TC74ACT540FT
COILS AND FILTERS		
	L2101-L2103	LFEA100J
CAPACITORS		
	C2104, C2111, C2116, C2117	ACH1392
	C2101, C2107, C2113	CEHAT221M16
	C2102, C2103, C2105, C2106	CKSRYB104K16
	C2108-C2110, C2112, C2114	CKSRYB104K16
RESISTORS		
	R2121, R2128	RAB4C472J
	Other Resistors	RS1/16S###J
OTHERS		
	CN2101, CN2102 15P CONNECTOR	AKM1200
[50 Y D-D CON BLOCK]		
SEMICONDUCTORS		
	IC2410-IC2412	AN1431M
	IC2406	BA10358F
	IC2401	MIP0223SC
	IC2402-IC2405, IC2407-IC2409	TLP181(P-GR)
	Q2402, Q2407	2SA1037K
	Q2410	2SA1163
	Q2417	2SA1535
	Q2411-Q2414, Q2416	2SC2412K
	Q2405	2SC2713
	Q2403	2SD1664
	Q2401, Q2404	2SD1898
	Q2415	HN1C01FU
	D2430	1SS301
	D2410, D2419, D2436	1SS302
	D2409, D2418	1SS355
	D2404-D2407	EC11FS2
	D2403, D2414	EC11FS4
	D2402	EC8FS6
	D2427	RD91PA
	D2401	U1ZB330
	D2412, D2413, D2422	UDZS15B
	D2425, D2426	UDZS27B
	D2415	UDZS33B
	D2432	UDZS4.3B
	D2423, D2431	UDZS5.6B
COILS AND FILTERS		
	T2402	ATK1156
	T2403	ATK1157
	T2401	ATK1158
	L2402	LFEA100J
	L2401	LFEA101J
	L2403	LFEA470J

Mark No.	Description	Part No.
	CAPACITORS	
	C2406	ACH1360
	C2401	ACH1361
A	C2427	CEHAT100M50
	C2403	CEHAT101M16
	C2405, C2407, C2417	CEHAT101M25
	C2414	CEHAT221M16
	C2410	CEHAT221M25
	C2411	CEHAT331M25
	C2420	CEHAT470M2A
	C2409, C2419	CKSRYB103K50
	C2402, C2412, C2413, C2423, C2425	CKSRYB104K16
	C2431, C2432, C2434-C2436	CKSRYB104K16
	C2441-C2443	CKSRYB104K16
B	C2415, C2421, C2428	CKSRYB105K6R3
	C2404, C2408, C2416, C2418, C2426	CKSRYF104Z50
	C2429	CKSRYF104Z50
	RESISTORS	
	R2429	ACN1225
	R2435, R2439	RS1/10S2202F
	R2402-R2404	RS1/10S3902F
	R2442	RS1/16S1201F
	R2468	RS1/16S1202F
	R2424	RS1/16S2001F
C	R2420, R2427, R2438	RS1/16S2201F
	R2467	RS1/16S3301F
	R2457-R2460	RS1/16S4701F
	R2506	RS3LMF151J
	VR2401, VR2402	CCP1390
	Other Resistors	RS1/16S###J
	OTHERS	
	2401 HEATSINK	ANH1614
	2401 SCREW	BBZ30P080FZK
	2002 CARD SPACER	AEC1957
D	2001 DRIVE SIRICON SHEET	AEH1062
	2001 PLATE Y	ANG2557
	2001 DRIVE HEATSINK A	ANH1613
	2001 SCREW	BMZ30P080FZK
	2002 SCREW	PMB30P060FNI

PCB PARTS LIST for PDP-4304, PDP-4314 models

43 ADDRESS ASSY

Mark No.	Description	Part No.
E	**[ADR LOGIC BLOCK]**	
	SEMICONDUCTORS	
	IC1501	PEE001B
	COILS AND FILTERS	
	F1501-F1503	ATF1194
	CAPACITORS	
	C1556,C1559,C1560,C1563 (330p/100V)	ACG1105
	C1501,C1502(47/6.3V)	ACH1357
	C1503-C1507,C1555,C1558,C1561	CKSSYF104Z16
F	C1564	CKSSYF104Z16
	RESISTORS	
	R1510,R1519,R1522	RAB4C470J
	R1513-R1518	RS1/16SS470J
	R1505-R1509	RS1/16SS1000F
	Other Resistors	RS1/16S###J
	OTHERS	
	CN1501 40P FFC CONNECTOR	AKM1215
	[ADR RESONANNCE BLOCK]	
	SEMICONDUCTORS	
	IC1601-IC1603	TND304S
	Q1604	2SA1163
	Q1601	HAT1081R
	Q1602,Q1603	HAT3019R
	D1601	1SS302
	D1608,D1609,D1617,D1618	EC10UA20
	D1610,D1611,D1616,D1619,D1620	EC11FS2
	D1604,D1612	MA126
	D1602,D1606,D1607,D1614,D1615	UDZS15B
	D1621,D1622	UDZS24B
	COILS AND FILTERS	
	L1601,L1602	ATH1135
	CAPACITORS	
	C1609,C1615 (0.47/100V)	ACE1172
	C1605,C1607,C1608,C1613,C1614 (0.01/100V)	ACG1101
	C1618 (47/6.3V)	ACH1357
	C1603 (47/16V)	ACH1391
	C1601,C1602 (56/80V)	ACH1405
	C1604,C1606,C1612	CKSSYF104Z16
	RESISTORS	
	R1631 (10,1/2W)	ACN1174
	Other Resistors	RS1/16S###J

43 SCAN A ASSY

Mark No.	Description	Part No.
	SEMICONDUCTORS	
	IC3001-IC3006	SN755864APZP
	D3001	KU10N16
	CAPACITORS	
	C3001,C3002,C3012,C3013	ACG1088
	C3023,C3024,C3034,C3035	ACG1088
	C3045,C3046,C3056,C3057 (0.1/250V)	ACG1088
	C3005,C3008,C3016,C3019,C3026	CCSRCH101J50
	C3029,C3037,C3040,C3048,C3051	CCSRCH101J50
	C3060,C3063	CCSRCH101J50
	C3007,C3018,C3033,C3044,C3050	CCSRCH181J50
	C3062	CCSRCH181J50
	C3006,C3011,C3017,C3022	CCSRCH331J50
	C3031,C3032,C3042,C3043,C3049	CCSRCH331J50
	C3055,C3061,C3066	CCSRCH331J50
	C3009,C3010,C3020,C3021,C3028	CCSRCH390J50
	C3030,C3039,C3041,C3053,C3054	CCSRCH390J50
	C3064,C3065	CCSRCH390J50
	C3003,C3014,C3025,C3036,C3047	CKSRYB105K6R3
	C3058	CKSRYB105K6R3
	RESISTORS	

Mark	No.	Description	Part No.
		R3003,R3011,R3017,R3025,R3030	RAB4C221J
		R3036	RAB4C221J
		Other Resistors	RS1/16S###J
OTHERS			
	CN3001	15P CONNECTOR	AKP1218
	K3001,K3004,K3009,K3015,K3017		AKX9002
	K3019,K3021	TEST PIN	AKX9002

43 SCAN B ASSY

SEMICONDUCTORS			
	IC3201-IC3206		SN755864APZP
	D3201		KU10N16
CAPACITORS			
	C3201,C3211,C3212,C3222,C3223		ACG1088
	C3233,C3234,C3244,C3245		ACG1088
	C3255,C3256,C3266 (0.1/250V)		ACG1088
	C3203,C3204,C3214,C3215,C3226		CCSRCH101J50
	C3228,C3237,C3239,C3247,C3251		CCSRCH101J50
	C3258,C3259		CCSRCH101J50
	C3206,C3217,C3232,C3243,C3249		CCSRCH181J50
	C3261		CCSRCH181J50
	C3205,C3210,C3216,C3221		CCSRCH331J50
	C3230,C3231,C3241,C3242,C3248		CCSRCH331J50
	C3254,C3260,C3265		CCSRCH331J50
	C3208,C3209,C3219,C3220,C3227		CCSRCH390J50
	C3229,C3238,C3240,C3252,C3253		CCSRCH390J50
	C3263,C3264		CCSRCH390J50
	C3202,C3213,C3224,C3235,C3246		CKSRYB105K6R3
	C3257		CKSRYB105K6R3
RESISTORS			
	R3202,R3210,R3216,R3224,R3229		RAB4C221J
	R3235		RAB4C221J
	Other Resistors		RS1/16S###J
OTHERS			
	CN3201	15P CONNECTOR	AKP1218
	K3203,K3208,K3214,K3216,K3218		AKX9002
	K3220,K3221	TEST PIN	AKX9002

X CONNECTOR A ASSY

This assembly has no service part.

X CONNECTOR B ASSY

This assembly has no service part.

43 X DRIVE ASSY

OTHERS			
	1002	CARD SPACER	AEC1957
	1001	DRIVE SIRICON SHEET A	AEH1062
	1001	PLATE X	ANG2622
	1001	DRIVE HEATSINK A	ANH1613
	1001	SCREW	BMZ30P080FZK
	1002	SCREW	PMB30P060FNI
[X LOGIC BLOCK]			
SEMICONDUCTORS			
	IC1002		TC74ACT540FT
	IC1001		TC74ACT541FT
	IC1003		TC74VHC08FT
CAPACITORS			
	C1001		CEHAT470M25
	C1002-C1004		CKSRYB104K16
RESISTORS			
	R1001,R1002,R1005		RAB4C470J
	R1003,R1004,R1007		RAB4C472J
OTHERS			
	CN1001	30P FFC CONNECTOR	AKM1218
[RESONANCE BLOCK]			
SEMICONDUCTORS			
	IC1103		BA10393F
	IC1101,IC1102		TND506MD
	Q1113		2SC2412K
	Q1102,Q1103,Q1111,Q1112,Q1114		2SK3560
	Q1105,Q1106,Q1108,Q1109		2SK3723
	Q1101,Q1104,Q1107,Q1110		CPH5506
	D1109,D1122		1SS302
	D1112,D1119		1SS355
	D1101,D1102,D1104,D1105		EC11FS4
	D1107,D1108,D1111,D1114-D1117		EC11FS4
	D1120,D1121,D1127,D1128		EC11FS4
	D1103,D1106,D1113,D1118		TCU20A30
	D1124,D1125		TCU20A30
	D1110,D1123		UDZS16B
COILS AND FILTERS			
	L1104		ATH1119
	L1102		ATH1133
	L1103,L1105		ATH1134
	L1101		LFEA470J
CAPACITORS			
	C1113,C1114,C1126,C1127 (3.3/250V)		ACE1168
	C1111,C1124 (100p/630V)		ACG1104
	C1109,C1119 (0.1/630V)		ACG1108
	C1101,C1105,C1116,C1117		CCSRCH331J50
	C1128,C1130-C1132		CKSRYB104K16
	C1102,C1118		CKSRYB105K6R3
	C1104,C1108,C1115,C1122		CKSYB105K25
RESISTORS			
	R1116,R1122		RS1/10S1003F
	R1133,R1143-R1145		RS1/10S100J
	R1103,R1106,R1118,R1119,R1153		RS1/10S2R2J
	R1136		RS1/16S1202F
	R1139		RS1/16S3301F
	R1130		RS1/16S5601F
	R1134		RS1/16S8201F
	R1113,R1128		RS1MMF101J
	VR1101-VR1104		CCP1390
	Other Resistors		RS1/16S###J
[SUS BLOCK]			
SEMICONDUCTORS			
	IC1202		HCPL-M611
	IC1205		NJM2872F05
	IC1203,IC1207		STK795-510
	IC1208		TLP181(P-GR)
	IC1204,IC1206		TND301S

Mark No.	Description	Part No.
	Q1207	2SC2412K
	Q1203	2SD1898
A	Q1302	2SJ522
	Q1301	2SK2503
	Q1205	2SK2908-01S
	Q1206,Q1208	DTC124EK
	Q1201	HN1B04FU
	D1212	1SS302
	D1211,D1213,D1216	1SS355
	D1201,D1207	EC10QS04
	D1204,D1301	EC11FS4
	D1214	EC8FS6
	D1208	UDZS5.6B
B		
	COILS AND FILTERS	
	L1204,L1205	ATH1112
	L1202	LFEA100J
	L1203,L1206	LFEA470J
	CAPACITORS	
	C1214-C1217,C1227-C1230	ACE1163
	C1233 (0.12/250V)	ACE1169
	C1244 (0.1/250V)	ACE1170
	C1209 (0.1/630V)	ACG1092
	C1219,C1231	ACH1359
C		
	C1224	CEHAT101M16
	C1301	CEHAT221M25
	C1203,C1207,C1210,C1220,C1223	CEHAT470M25
	C1238,C1239	CEHAT470M25
	C1235	CKSRYB102K50
	C1213,C1225,C1240,C1241,C1243	CKSRYB104K16
	C1202,C1205,C1206,C1212,C1302	CKSRYF104Z50
	RESISTORS	
	R1230 (2.2/ 1/2W)	ACN1166
	R1208 (10/ 1/2W)	ACN1174
D	R1304 (560/ 1/2W)	ACN1195
	R1305 (1k/ 1/2W)	ACN1198
	R1301,R1302,R1314	RS1/10S122J
	R1226,R1251	RS1MMF361J
	R1235,R1236	RS2MMF121J
	Other Resistors	RS1/16S###J
	OTHERS	
	KN1201-KN1205,KN1208,KN1214	ANK-142
	KN1210-KN1212 (GROUND PLATE)	ANK-142
	CN1201 12P CONNECTOR	B12B-EH
E		
	[D-D CON BLOCK]	
	SEMICONDUCTORS	
	IC1404	AN1431M
	IC1402	MIP161
	IC1401,IC1403	TLP181(P-GR)
	Q1401	2SA1037K
	Q1402	2SC2412K
	D1407,D1408	EC11FS2
	D1404	EC8FS6
	D1401,D1403	UDZS5.6B
F	**COILS AND FILTERS**	
	L1401	ATH1110
	T1401	ATK1153

Mark No.	Description	Part No.
	CAPACITORS	
	C1401,C1402 (22/315V)	ACH1361
	C1404	CEHAT101M16
	C1405	CEHAT101M25
	C1409	CEHAT331M16
	C1403,C1407,C1408,C1411	CKSRYB104K16
	C1406	CKSRYF104Z50
	RESISTORS	
	R1405,R1406,R1408-R1410,R1414	RS1/10S3602F
	R1420	RS1/16S1101F
	R1403	RS1/16S2702F
	R1401,R1404	RS1/16S4701F
	R1417	RS1/16S7500F
	VR1401 (1k)	CCP1390
	Other Resistors	RS1/16S###J

PANEL SENSOR ASSY

	SEMICONDUCTORS	
	IC1072	MM1522XU
	IC1071	MM3012XN
	CAPACITORS	
	C1075	ACH1357
	C1074	CKSRYB103K50
	C1071,C1076	CKSRYB104K16
	C1072,C1073	CKSRYF105Z10
	RESISTORS	
	R1076,R1078	RS1/16S1001F
	Other Resistors	RS1/16S###J

43 Y DRIVE ASSY

	OTHERS	
2002	CARD SPACER	AEC1957
2001	DRIVE SIRICON SHEET A	AEH1062
2001	PLATE Y	ANG2557
2001	DRIVE HEATSINK A	ANH1613
2001	SCREW	BMZ30P080FZK
2002	SCREW	PMB30P060FNI
	[Y LOGIC BLOCK]	
	SEMICONDUCTORS	
	IC2002	TC74ACT540FT
	IC2001,IC2003	TC74ACT541FT
	IC2005	TC74VHC08FT
	IC2004	TC74VHC541FT
	Q2001	DTC124EK
	CAPACITORS	
	C2001	CEHAT470M16
	C2010,C2011	CKSRYB104K16
	C2002-C2006	CKSRYF104Z50
	RESISTORS	
	R2018,R2019	RAB4C102J
	R2002,R2004,R2013-R2015	RAB4C470J
	R2005,R2006,R2012,R2016,R2017	RAB4C472J
	Other Resistors	RS1/16S###J
	OTHERS	
	CN2001 50P CONNECTOR	AKM1201

Mark No.	Description	Part No.
	[Y RESONANCE BLOCK]	
	SEMICONDUCTORS	
IC2211		BA10393F
IC2201,IC2202		TND506MD
Q2213		2SC2412K
Q2202,Q2203,Q2211,Q2212,Q2214		2SK3560
Q2205,Q2206,Q2208,Q2209		2SK3723
Q2201,Q2204,Q2207,Q2210		CPH5506
D2209,D2223		1SS302
D2228,D2229		1SS355
D2202-D2205,D2207,D2208		EC11FS4
D2213,D2214,D2216-D2219,D2222		EC11FS4
D2226,D2227		EC11FS4
D2201,D2206,D2211,D2215,D2220		TCU20A30
D2225		TCU20A30
D2210,D2224		UDZS16B
	COILS AND FILTERS	
L2204		ATH1119
L2202		ATH1133
L2203,L2205		ATH1134
L2201		LFEA470J
	CAPACITORS	
C2212,C2213,C2226,C2227 (3.3/250V)		ACE1168
C2211,C2224 (100p/630V)		ACG1104
C2210,C2223 (0.1/630V)		ACG1108
C2202,C2205,C2216,C2217		CCSRCH331J50
C2230,C2232,C2233,C2235		CKSRYB104K16
C2203,C2218		CKSRYB105K6R3
C2201,C2208,C2215,C2219		CKSYB105K25
	RESISTORS	
R2240,R2241		RS1/10S1003F
R2244-R2247		RS1/10S100J
R2204,R2205,R2220,R2221,R2253		RS1/10S2R2J
R2234		RS1/16S1202F
R2235		RS1/16S3301F
R2233		RS1/16S5601F
R2242		RS1/16S8201F
R2215,R2230		RS1MMF101J
VR2201-VR2204 (1k)		CCP1390
Other Resistors		RS1/16S###J
	[Y SUS BLOCK]	
	SEMICONDUCTORS	
IC2302,IC2308		HCPL-M611
IC2305		NJM2872F05
IC2303,IC2307		STK795-511
IC2301,IC2304,IC2309		TND301S
Q2310		2SC2412K
Q2303,Q2307		2SD1898
Q2301		2SJ522
Q2302,Q2308,Q2312		2SK3325-Z
Q2309		HN1B04FU
D2302		1SS302
D2319		EC10QS04
D2305		EC11FS4
D2301		UDZS16B
D2306,D2318		UDZS5.6B
	COILS AND FILTERS	

Mark No.	Description	Part No.
L2306,L2307		ATH1112
L2304		LFEA100J
L2308		LFEA101J
L2301,L2302,L2305		LFEA470J
	CAPACITORS	
C2309-C2312,C2326,C2327		ACE1163
C2329,C2330 (1.5/300V)		ACE1163
C2314 (0.047/250V)		ACE1165
C2302 (0.1/630V)		ACG1092
C2316,C2331 (300/280V)		ACH1359
C2303 (22/315V)		ACH1361
C2336 (220/100V)		ACH1393
C2306,C2334		CEHAT221M25
C2308,C2324,C2339,C2340		CEHAT470M16
C2304,C2320,C2338		CEHAT470M25
C2305,C2322,C2323,C2325,C2333		CKSRYB104K16
C2341		CKSRYB104K16
C2301,C2307,C2328		CKSRYF104Z50
	RESISTORS	
R2332 (2.2,1/2W)		ACN1166
R2309		RS1MMF132J
R2310,R2311		RS1MMF472J
R2312-R2314,R2322,R2323		RS3LMF100J
R2348,R2352,R2358,R2359		RS3LMF1R8J
Other Resistors		RS1/16S###J
	OTHERS	
KN2301-KN2305,KN2310,KN2312		ANK-142
KN2314,KN2316 (GROUND PLATE)		ANK-142
CN2301 11P CONNECTOR		B11B-EH
	[Y SCAN BLOCK]	
	SEMICONDUCTORS	
IC2101,IC2103-IC2106,IC2108,IC2109		HCPL-M611
IC2102,IC2107		TC74ACT540FT
	COILS AND FILTERS	
L2101-L2103		LFEA100J
	CAPACITORS	
C2104,C2111 (47/160V)		ACH1392
C2101,C2107,C2113		CEHAT221M16
C2102,C2103,C2105,C2106		CKSRYB104K16
C2108-C2110,C2112,C2114		CKSRYB104K16
	RESISTORS	
R2121,R2128		RAB4C472J
Other Resistors		RS1/16S###J
	OTHERS	
CN2101,CN2102 15P CONNECTOR		AKM1200
	[Y D-D CON BLOCK]	
	SEMICONDUCTORS	
IC2410-IC2412		AN1431M
IC2406		BA10358F
IC2401		MIP0223SC
IC2402-IC2405,IC2407-IC2409		TLP181(P-GR)
Q2402,Q2407		2SA1037K
Q2410		2SA1163
Q2417		2SA1535
Q2411-Q2414,Q2416		2SC2412K

Mark	No.	Description	Part No.
	Q2405		2SC2713
	Q2403		2SD1664
A	Q2401,Q2404		2SD1898
	Q2415		HN1C01FU
	D2430		1SS301
	D2410,D2419,D2436		1SS302
	D2409,D2418		1SS355
	D2404-D2407		EC11FS2
	D2403,D2414		EC11FS4
	D2402		EC8FS6
	D2427		RD91PA
	D2401		U1ZB330
	D2412,D2413,D2422		UDZS15B
B	D2425,D2426		UDZS27B
	D2415		UDZS33B
	D2432		UDZS4.3B
	D2423,D2431		UDZS5.6B
	COILS AND FILTERS		
	T2402		ATK1156
	T2403		ATK1157
	T2401		ATK1158
	L2402		LFEA100J
	L2401		LFEA101J
C	L2403		LFEA470J
	CAPACITORS		
	C2406 (100/160V)		ACH1360
	C2401 (22/315V)		ACH1361
	C2427		CEHAT100M50
	C2403		CEHAT101M16
	C2405,C2407,C2417		CEHAT101M25
	C2414		CEHAT221M16
	C2410		CEHAT221M25
	C2411		CEHAT331M25
	C2420		CEHAT470M2A
D	C2409,C2419		CKSRYB103K50
	C2402,C2412,C2413,C2423,C2425		CKSRYB104K16
	C2431,C2432,C2434-C2436		CKSRYB104K16
	C2441-C2443		CKSRYB104K16
	C2415,C2421,C2428		CKSRYB105K6R3
	C2404,C2408,C2416,C2418,C2426		CKSRYF104Z50
	C2429		CKSRYF104Z50
	RESISTORS		
	R2429 (180k,1/2W)		ACN1225
	R2435,R2439		RS1/10S2202F
E	R2402-R2404		RS1/10S3902F
	R2442		RS1/16S1201F
	R2468		RS1/16S1202F
	R2424		RS1/16S2001F
	R2420,R2427,R2438		RS1/16S2201F
	R2467		RS1/16S3301F
	R2457-R2460		RS1/16S4701F
	R2506		RS3LMF151J
	VR2401,VR2402 (1k)		CCP1390
	Other Resistors		RS1/16S###J
F	**OTHERS**		
	2401	HEATSINK	ANH1614
	2401	SCREW	BBZ30P080FZK

Mark	No.	Description	Part No.

PCB PARTS LIST for Common models (PDP-5004, PDP-5014 and PDP-4304, PDP-4314 models)

RGB ASSY

[REG BLOCK]

SEMICONDUCTORS

	IC7411	BD6522F
⚠	IC7412	M5291FP
	IC7402	MM1522XU
	IC7401	MM3012XN
	IC7404	NJM12904V
⚠	IC7408, IC7409	PQ05DZ11
⚠	IC7405, IC7410	PQ20WZ11
⚠	IC7406, IC7407	PQ3DZ13
	IC7403	TC74VHC08FT
	Q7405	2SA1586
	Q7407, Q7408, Q7410, Q7411	HN1A01FU
	Q7404	HN1C01FU
	Q7401	RN1901
	Q7409	RN1902
	D7408	1SS301
	D7407, D7409-D7414	1SS355
	D7415, D7416	EC11FS2

COILS AND FILTERS

	L7401	ATH1125

CAPACITORS

	C7408	ACH1357
	C7414, C7419, C7434, C7437 (100/25V)	ACH1374
	C7447, C7450 (47microF/16V)	ACH1391
	C7416, C7423, C7424, C7430 (100microF/16V)	ACH1394
	C7418, C7421, C7426, C7432, C7445 (100microF/6.3V)	ACH1396
	C7452 (100microF/6.3V)	ACH1396
	C7403 (22microF/16V)	ACH1400
	C7428, C7429, C7448	CCSRCH221J50
	C7440, C7459-C7466	CKSRYB102K50
	C7407, C7409, C7453-C7455	CKSRYB103K50
	C7457, C7458	CKSRYB103K50
	C7436	CKSRYB104K16
	C7446	CKSRYB821K50
	C7413, C7435	CKSRYF104Z50
	C7402, C7410	CKSRYF105Z10
	C7404-C7406, C7411, C7412, C7415	CKSSYF104Z16
	C7417, C7420, C7422, C7425, C7427	CKSSYF104Z16
	C7431, C7433, C7439, C7441-C7444	CKSSYF104Z16
	C7449, C7451	CKSSYF104Z16

RESISTORS

	R7402, R7405, R7417	RAB4CQ101J
	R7426	RAB4CQ103J
	R7480	RS1/10S1R5J
	R7412, R7420, R7486	RS1/16S1001F
	R7437, R7439, R7467, R7469, R7476	RS1/16S1002F
	R7461	RS1/16S1501F
	R7422	RS1/16S1800F
	R7440, R7445	RS1/16S2201F
	R7477	RS1/16S2202F
	R7484	RS1/16S3301F

Mark No.	Description	Part No.
R7438		RS1/16S4700F
R7465		RS1/16S4702F
R7460		RS1/16S6201F
R7447		RS1/16S7500F
R7478		RS1/16S8201F
Other Resistors		RS1/16S###J
OTHERS		
CN7405	12P PLUG	AKM1203
CN7401	15P PLUG	AKM1232
CN7410	50P PLUG	AKM1270
[MAIN LPF BLOCK]		
SEMICONDUCTORS		
IC6402		AN5870SB
IC6404		BA7078AF
IC6403		BA7657F
IC6401		SM5301BS
IC6407		TC74VHC08FT
IC6405		TC74VHC125FT
Q6419-Q6421		2SA1586
Q6407, Q6417		DTC124EUA
Q6402-Q6406, Q6408, Q6410, Q6412		HN1B04FU
D6404		1SS302
COILS AND FILTERS		
L6401		LCTAW4R7J2520
L6402		LCTAWR68J2520
CAPACITORS		
C6409, C6436, C6437, C6462, C6469		ACH1357
C6402, C6405, C6406, C6427, C6428		ACH1391
C6431	(47microF/16V)	ACH1391
C6416, C6417, C6424	(100microF/16V)	ACH1394
C6433	(10microF/16V)	ACH1399
C6439	(22microF/16V)	ACH1400
C6445		CCSRCH151J50
C6435, C6467, C6468		CCSRCH470J50
C6401, C6403, C6404, C6414, C6415		CKSRYB103K50
C6423, C6429, C6430, C6432, C6438		CKSRYB103K50
C6446, C6449, C6451, C6454, C6456		CKSRYB103K50
C6459, C6461, C6470-C6476		CKSRYB103K50
C6463		CKSRYB104K25
C6408, C6411, C6412, C6421, C6455		CKSRYB105K6R3
C6457, C6460		CKSRYB105K6R3
C6458		CKSRYB471K50
C6443		CKSRYB474K10
C6442		CKSRYB562K50
C6407, C6410, C6413, C6418-C6420		CKSSYF104Z16
C6425, C6426, C6434, C6440, C6441		CKSSYF104Z16
C6444, C6447, C6448, C6450		CKSSYF104Z16
C6452, C6453		CKSSYF104Z16
RESISTORS		
R6489		RAB4CQ470J
R6422		RS1/16S1101F
R6526-R6528		RS1/16S2200F
R6428, R6429		RS1/16S3000F
R6547-R6549		RS1/16S75R0F
Other Resistors		RS1/16S###J

Mark No.	Description	Part No.
OTHERS		
K6401-K6406	TEST PIN	AKX9002
CN6402	6P PLUG	KM200NA6
[MAIN AD BLOCK]		
SEMICONDUCTORS		
IC6001		CXA3516AR
IC6002-IC6008		TC74LCX541FT
Q6001		2SC4116
D6001		1SS355
COILS AND FILTERS		
L6001		LCTAWR68J2520
CAPACITORS		
C6001, C6005, C6010, C6028, C6041		ACH1396
C6043, C6051, C6054	(100microF/6.3V)	ACH1396
C6020		CCSRCH101J50
C6011		CCSRCH220J50
C6017		CCSRCH331J50
C6003, C6018, C6024, C6025		CKSRYB105K6R3
C6033, C6034, C6037, C6038, C6045		CKSRYB105K6R3
C6062-C6068		CKSRYB471K50
C6002, C6004, C6006-C6009		CKSSYF104Z16
C6012-C6016, C6021-C6023		CKSSYF104Z16
C6026, C6027, C6029-C6032		CKSSYF104Z16
C6035, C6036, C6039, C6040, C6042		CKSSYF104Z16
C6044, C6046-C6050, C6052, C6053		CKSSYF104Z16
C6055-C6061		CKSSYF104Z16
RESISTORS		
R6001, R6004, R6013, R6014		RAB4CQ100J
R6020, R6021, R6024, R6027, R6033		RAB4CQ100J
R6038, R6044, R6054		RAB4CQ100J
R6073-R6085		RAB4CQ330J
R6023		RN1/16SE3001D
R6018		RS1/16S2201F
R6016		RS1/16S2701F
R6019		RS1/16S3301F
Other Resistors		RS1/16S###J
OTHERS		
K6001-K6007, K6010-K6013	TEST PIN	AKX9002
[SUB LPF & AD BLOCK]		
SEMICONDUCTORS		
IC6602		AD9883AKST-110
IC6604		BA7078AF
IC6601		SM5301BS
IC6608-IC6614		TC74LCX541FT
IC6605		TC74VHC08FT
IC6603, IC6607		TC74VHC125FT
Q6603, Q6604		DTC124EUA
Q6605		HN1B04FU
COILS AND FILTERS		
F6601		ATF1194
L6701		LCTAWR68J2520
CAPACITORS		
C6635-C6637, C6640		ACH1357
C6633	(10microF/16V)	ACH1399
C6644		CCSRCH151J50
C6638		CKSRYB103K50

Mark	No.	Description	Part No.
	C6604, C6624		CKSRYB104K16
	C6648		CKSRYB104K25
A	C6608, C6611, C6612, C6621		CKSRYB105K6R3
	C6630-C6632		CKSRYB105K6R3
	C6646, C6656-C6661		CKSRYB471K50
	C6609, C6614, C6623		CKSRYB473K16
	C6642		CKSRYB474K10
	C6641		CKSRYB562K50
	C6602		CKSRYB822K50
	C6601		CKSRYB823K16
	C6605-C6607, C6610, C6613		CKSSYF104Z16
	C6615-C6620, C6625-C6629, C6634		CKSSYF104Z16
	C6639, C6643, C6645, C6647		CKSSYF104Z16
B	C6649-C6655		CKSSYF104Z16
	RESISTORS		
	R6699-R6710, R6723-R6728		RAB4CQ0R0J
	R6729-R6734		RAB4CQ101J
	R6608, R6613, R6621, R6627		RAB4CQ470J
	R6643, R6644, R6667-R6672		RAB4CQ470J
	R6676-R6678, R6681-R6685		RAB4CQ470J
	R6612, R6619, R6620		RS1/16S1000F
	R6625		RS1/16S1101F
	R6607, R6611, R6626		RS1/16S1300F
	R6601		RS1/16S2701F
C	Other Resistors		RS1/16S###J
	OTHERS		
	K6601-K6607 TEST PIN		AKX9002
	[BUS SW1 BLOCK]		
	SEMICONDUCTORS		
	IC5701		PD6435A
	CAPACITORS		
	C5701 (47microF/16V)		ACH1391
D	C5709, C5710		CCSRCH150J50
	C5721-C5737		CKSRYB103K50
	C5702-C5708, C5711, C5712		CKSSYF104Z16
	C5714-C5718		CKSSYF104Z16
	RESISTORS		
	R5703-R5706, R5708-R5712, R5714		RAB4CQ100J
	R5717, R5721, R5735, R5739-R5750		RAB4CQ100J
	R5755, R5756, R5762, R5763		RAB4CQ100J
	R5768-R5771		RAB4CQ100J
	R5728-R5734, R5782-R5787		RAB4CQ103J
E	Other Resistors		RS1/16S###J
	OTHERS		
	CN5701 120P PCI BUS SOCKET		AKP1220
	X5701 CERAMIC RESONATOR		ASS1169
	[BUS SW2 BLOCK]		
	SEMICONDUCTORS		
	IC5801		PD6435A
	CAPACITORS		
	C5801 (47microF/16V)		ACH1391
F	C5809, C5810		CCSRCH150J50
	C5802-C5808, C5811, C5812		CKSSYF104Z16
	C5814-C5818		CKSSYF104Z16

Mark	No.	Description	Part No.
	RESISTORS		
	R5816-R5825, R5827, R5835, R5849		RAB4CQ100J
	R5852, R5854, R5856, R5858, R5860		RAB4CQ100J
	R5868-R5871, R5877		RAB4CQ100J
	R5802-R5808, R5812-R5814, R5831		RAB4CQ103J
	R5837, R5844, R5883		RAB4CQ103J
	R5845, R5850, R5851, R5853, R5855		RAB4CQ470J
	R5857, R5859, R5861-R5863, R5876		RAB4CQ470J
	Other Resistors		RS1/16S###J
	OTHERS		
	X5801 CERAMIC RESONATOR		ASS1169
	[IC2 BLOCK]		
	SEMICONDUCTORS		
	IC7001, IC7002		IC42S32200-7TG
	IC7004		PE5362A
	IC7003		TC74LCX125FT
	COILS AND FILTERS		
	F7001, F7002 EMI FILTER		ATF1194
	CAPACITORS		
	C7029, C7041 (100microF/6.3V)		ACH1396
	C7065		CCSRCH100D50
	C7066-C7068		CCSRCH221J50
	C7001-C7024, C7026-C7028		CKSSYF104Z16
	C7032-C7040, C7042-C7063		CKSSYF104Z16
	C7031		DCH1165
	RESISTORS		
	R7034		RAB4CQ470J
	R7027, R7037		RS1/16SS0R0J
	R7023, R7035, R7036		RS1/16SS101J
	R7001, R7008		RS1/16SS102J
	R7002- R7004, R7024		RS1/16SS103J
	R7006, R7009, R7012		RS1/16SS220J
	R7011		RS1/16SS820J
	Other Resistors		RS1/16S###J
	OTHERS		
	K7001-K7003 TEST PIN		AKX9002
	X7001 (85MHz)		ASS1174
	[IC3 BLOCK]		
	SEMICONDUCTORS		
	IC7102		24LC02B(I)SN
	IC7101		PD5855A
	COILS AND FILTERS		
	F7101, F7102		ATF1194
	CAPACITORS		
	C7103, C7120, C7138 (100microF/6.3V)		ACH1396
	C7141		CCSRCH100D50
	C7101, C7102, C7104-C7119		CKSSYF104Z16
	C7121-C7137, C7139, C7140, C7142		CKSSYF104Z16
	RESISTORS		
	R7102, R7105-R7108, R7110, R7111		RAB4CQ330J
	R7128, R7129, R7132, R7133		RAB4CQ330J
	R7136, R7137		RAB4CQ330J
	R7154		RAB4CQ470J
	R7125, R7142		RS1/16SS0R0J

Mark No.	Description	Part No.
	R7120, R7150, R7151	RS1/16SS101J
	R7101	RS1/16SS103J
	R7103, R7104, R7112, R7114, R7122	RS1/16SS330J
	R7126, R7127, R7130, R7131, R7134	RS1/16SS330J
	R7135, R7138, R7139, R7152	RS1/16SS330J
	R7149	RS1/16SS472J
	Other Resistors	RS1/16S###J
OTHERS		
	CN7101 114P FFC CONNECTOR	AKM1216
	K7101, K7102 TEST PIN	AKX9002
[IC3 FLASH BLOCK]		
SEMICONDUCTORS		
	IC7152	MBM29PL3200BE70PFV
CAPACITORS		
	C7152, C7153, C7155-C7158, C7160	CKSSYF104Z16
	C7162	CKSSYF104Z16
RESISTORS		
	R7155- R7160	RS1/16SS472J
[MAIN UCOM BLOCK]		
SEMICONDUCTORS		
	IC7205	24LC128(I)SN
	IC7201, IC7204	74VHCT00AMTC
	IC7207	MB91F355APMTGE1
	IC7210	PST3612UR
	IC7203, IC7206	PST3628UR
	IC7209	TC74VHC08FT
	IC7202	TC74VHC125FT
	IC7208	TC74VHCT541AFT
	Q7201	2SJ461A
	Q7202	DTC124EUA
	D7202	1SS355
	D7203	SML-310MT
CAPACITORS		
	C7205, C7236 (47microF/16V)	ACH1391
	C7143, C7203	CCSRCH220J50
	C7213, C7218	CCSRCH7R0D50
	C7248-C7249	CKSRYB102K50
	C7235, C7245	CKSRYB103K50
	C7226, C7237	CKSRYB104K16
	C7230, C7242	CKSRYB104K25
	C7216	CKSRYB472K50
	C7201, C7202, C7209-C7212	CKSSYF104Z16
	C7214, C7215, C7219-C7225	CKSSYF104Z16
	C7227-C7229, C7232-C7234, C7238	CKSSYF104Z16
	C7240, C7241, C7243, C7244	CKSSYF104Z16
	C7246, C7247	CKSSYF104Z16
RESISTORS		
	R7231	RAB4CQ0R0J
	R7229	RAB4CQ101J
	R7256	RAB4CQ103J
	R7218, R7219, R7284-R7286, R7301	RAB4CQ470J
	R7309, R7311-R7314, R7317	RAB4CQ470J
	R7201	RAB4CQ472J
	R7212, R7232	RS1/16S1202F
	R7208, R7209, R7216, R7217	RS1/16SS0R0J
	R7207, R7221- R7223, R7225, R7226	RS1/16SS470J
	R7228, R7230, R7249, R7251, R7262	RS1/16SS470J
	R7263, R7278, R7279, R7310, R7315	RS1/16SS470J
	R7316, R7318, R7339	RS1/16SS470J
	Other Resistors	RS1/16S###J
OTHERS		
	CN7201 8P PLUG	AKM1225
	X7201 CERAMIC RESONATOR	ASS1170
	CN7204 3P TOP POST	B3B-EH

AV I/O ASSY

[AV I/O BLOCK]

SEMICONDUCTORS		
	IC7609	24LCS21A
	IC7610	AN5870SB
	IC7602, IC7606, IC7607, IC7613	BA4558F-HT
	IC7603	BD3869AF
	IC7604	NJM78L09UA
	IC7612	PCM1742KE
	IC7601	TC4052BFT
	IC7611	TC74VHCT541AFT
	Q7602, Q7603, Q7606, Q7611, Q7612	2SA1586
	Q7604, Q7605, Q7610	2SC4116
	Q7607, Q7608	DTC124EUA
	Q7601	RN1902
	Q7609	SM6K2
	D7601, D7614	1SS301
	D7606-D7608, D7610-D7613	1SS302
	D7619	1SS355
	D7602, D7603, D7605, D7609	UDZS5R6(B)
	D7604	UDZS6R8(B)
COILS AND FILTERS		
	F7601	ATF1194
CAPACITORS		
	C7659, C7669	CCSRCH181J50
	C7673, C7674	CCSRCH220J50
	C7658, C7672	CCSRCH681J50
	C7676, C7678, C7680, C7682	CCSSCH221J50
	C7646, C7651-C7653	CEHAT100M50
	C7654	CEHAT101M10
	C7665, C7670	CEHAT101M16
	C7623, C7648	CEHAT220M50
	C7638, C7643, C7645, C7705	CEHAT221M6R3
	C7714, C7716, C7718	CEHAT331M10
	C7619, C7635, C7637, C7697	CEHAT470M16
	C7601, C7602, C7609, C7610, C7614	CKSQYB225K10
	C7616, C7629, C7631, C7632, C7639	CKSQYB225K10
	C7627, C7628, C7640, C7650	CKSRYB102K50
	C7660, C7661, C7666, C7683, C7685	CKSRYB103K50
	C7687, C7712, C7713, C7715, C7717	CKSRYB103K50
	C7603, C7620, C7662, C7663, C7667	CKSRYB105K10
	C7684, C7686, C7688	CKSRYB105K10
	C7633, C7656	CKSRYB471K50
	C7675, C7677, C7679, C7681	CKSSYB102K50
	C7615, C7617, C7618, C7624-C7626	CKSSYF104Z16
	C7630, C7634, C7636, C7641, C7642	CKSSYF104Z16
	C7644, C7649, C7655, C7657, C7664	CKSSYF104Z16
	C7668, C7671, C7704, C7706	CKSSYF104Z16
	C7708-C7711	CKSSYF104Z16

Mark	No.	Description	Part No.
		RESISTORS	
	R7653, R7654, R7673, R7674		RS1/16S1002F
	R7712, R7725		RS1/16S2201F
A	R7699-R7701		RS1/16S27R0F
	R7709-R7711		RS1/16S75R0F
	Other Resistors		RS1/16S###J
		OTHERS	
	JA7606 15P D-SUB SOCKET		AKP1241
	K7601, K7602 TEST PIN		AKX9002
	JA7601, JA7602 JACK		DKB1031
	CN7601 PLUG(15P)		KM200NA15
		[IF UCOM BLOCK]	
		SEMICONDUCTORS	
B	IC8705		24LC01B
	IC8702		HD64F3687FP
	IC8703		PST9230N
	IC8701		TC74VHC08FT
	IC8704		TC7W126FU
	Q8701		2SJ461A
	Q8708		DTA124EUA
	Q8702		DTC124EUA
		COILS AND FILTERS	
	L8703		LCTAW221J3225
C	L8702		LCTAWR68J2520
		CAPACITORS	
	C8706, C8707		CCSRCH120J50
	C8708		CEHAT470M16
	C8704, C8718		CEHAT471M6R3
	C8717, C8720		CKSRYB103K50
	C8722, C8724		CKSRYB471K50
	C8709		CKSRYB472K50
	C8701-C8703, C8705, C8711-C8713		CKSSYF104Z16
	C8716, C8719, C8721, C8725		CKSSYF104Z16
D		**RESISTORS**	
	R8719, R8720, R8723, R8724, R8726		RAB4C101J
	R8704		RAB4C103J
	R8736		RS1/16S1302F
	Other Resistors		RS1/16S###J
		OTHERS	
	CN8701 PLUG 8-P		AKM1225
	K8701-K8703 TEST PIN		AKX9002
	X8702 CERAMIC RESONATOR		ASS1168
	X8701 CRYSTAL OSCILLATOR		ASS1172
	CN8704 PLUG(6P)		KM200NA6
E			
		[HDMI BLOCK]	
		SEMICONDUCTORS	
	IC6806		24LC02B(I)SN
	IC6809		SI-8033JD
	IC6810		SII9993CTG100
	IC6802		TC74HC4538AFT
	IC6804, IC6805, IC6807, IC6811		TC74LCX541FT
	Q6813		RN1902
	Q6816		SM6K2
	D6806, D6809, D6813		1SS301
F	D6810, D6812		1SS302
	D6816		D1FM3
	D6811		UDZS6R8(B)

Mark	No.	Description	Part No.
		COILS AND FILTERS	
	F6804-F6806		ATF1194
	F6807, F6808		ATF1211
	L6804		ATH1184
		CAPACITORS	
	C6923		CCSRCH221J50
	C6864, C6865, C6867, C6869		CCSSCH101J50
	C6873, C6874, C6879, C6881, C6884		CCSSCH101J50
	C6886, C6888, C6892, C6908, C6910		CCSSCH101J50
	C6912, C6914, C6917, C6920		CCSSCH101J50
	C6921		CCSSCH221J50
	C6891		CEHAT100M50
	C6860		CEHAT101M10
	C6823, C6825		CEHAT220M50
	C6902		CEHAT221M16
	C6878, C6916, C6922		CEHAT221M6R3
	C6877		CEHAT470M16
	C6905		CEHAT471M10
	C6859, C6861, C6875, C6896		CKSRYB471K50
	C6903, C6904, C6906		CKSRYF104Z16
	C6893		CKSSYB473K16
	C6890		CKSSYF103Z50
	C6824, C6841, C6842, C6858		CKSSYF104Z16
	C6862, C6863, C6866, C6868		CKSSYF104Z16
	C6870-C6872, C6876, C6880		CKSSYF104Z16
	C6882, C6883, C6885, C6887, C6889		CKSSYF104Z16
	C6895, C6907, C6909, C6911, C6913		CKSSYF104Z16
	C6915, C6918, C6919		CKSSYF104Z16
	C6894		DCH1161
		RESISTORS	
	R6896, R6913, R6926, R6933, R6935		RAB4CQ470J
	R6937, R6938, R6953, R6960		RAB4CQ470J
	R6897, R6914, R6927, R6934, R6936		RAB4CQ680J
	R6954, R6968		RAB4CQ680J
	R6831		RD1/2LMF1R0J
	R6932		RS1/16S3900F
	R6952		RS1/16S3901F
	R6962-R6967		RS1/16S75R0F
	R6950		RS1/16S91R0F
	Other Resistors		RS1/16S###J
		OTHERS	
	JA6802 HDMI CONNECTOR		AKP1232
	Other Resistors		
		RESISTORS	
	Other Resistors		RS1/16S###J

AUDIO AMP ASSY

Mark	No.	Description	Part No.
		SEMICONDUCTORS	
	IC5002		BA4558F-HT
⚠	IC5003		LA4625
⚠	IC5004		PQ12DZ11
⚠	IC5001		SI-8120S
	Q5005, Q5007, Q5008		2SA1586
	Q5001, Q5009		2SC4116
	Q5011, Q5012		2SD2114K
	Q5013		DTA124EUA

Mark No.	Description	Part No.
D5003		1SS301
D5001		1SS302
D5002		1SS355
D5005		RK46
COILS AND FILTERS		
L5002		ATH1159
CAPACITORS		
C5049, C5080		CEHAT101M16
C5045		CEHAT220M50
C5010		CEHAT221M10
C5022		CEHAT222M16
C5047, C5048, C5081		CEHAT2R2M50
C5050		CEHAT330M25
C5005-C5008, C5016		CEHAT470M16
C5051		CEHATR47M50
C5019, C5020		CEHAZL471M25
C5002, C5004, C5017, C5027		CKSRYB103K50
C5055-C5058		CKSRYB104K25
C5043, C5044		CKSRYB222K50
RESISTORS		
R5049-R5052		RD1/4MUF2R2J
R5053-R5056		RS1/10S5R6J
R5001		RS1/16S1502F
R5005, R5006, R5009, R5010		RS1/16S3301F
R5003, R5004, R5007, R5008		RS1/16S6801F
Other Resistors		RS1/16S###J
OTHERS		
CN5002 PLUG(6P)		KM200NA6
5001 SCREW		VBB30P100FNI
KN5001, KN5002 WRAPPING TERMINAL		VNF1084

VIDEO SLOT I/F ASSY

Mark No.	Description	Part No.
SEMICONDUCTORS		
IC8952		24LC01B
Q8953		DTC124EUA
D8951, D8952		UDZS5.6B
COILS AND FILTERS		
L8951		ATX1008
CAPACITORS		
C8952		CEHAT470M16
C8953		CKSSYF104Z16
RESISTORS		
Other Resistors		RS1/16S###J
OTHERS		
CN8953 SOKET120-P		AKP1219
CN8954 PCISOKET184		AKP1251
CN8955 SOKET50-P		AKP1253
KN8951, KN8952 GROUND PLATE		ANK1664
CN8952 L-PLUG(11P)		KM200NA11L

IR RECEIVE ASSY

Mark No.	Description	Part No.
SEMICONDUCTORS		
Q4901		2SC4116
D4902		1SS302
D4901		1SS355
CAPACITORS		
C4905		CCSRCH101J50
C4901		CEAT470M16
C4903		CKSRYB102K50
C4907		CKSRYB103K50
C4902, C4904		CKSSYF104Z16
RESISTORS		
Other Resistors		RS1/16S###J
OTHERS		
U4901 REMOTE RECEIVER UNIT		RPM7240-H4

SP TERMINAL L ASSY

Mark No.	Description	Part No.
SEMICONDUCTORS		
IC9752		MM1522XU
IC9751		MM3012XN
COILS AND FILTERS		
L9701, L9702		ATF1206
CAPACITORS		
C9703, C9704		CCSRCH101J50
C9706, C9708-C9711		CCSRCH221J50
C9753, C9756		CEAT470M16
C9754		CKSRYB103K50
C9752, C9755		CKSRYB105K10
C9705		CKSRYB332K50
C9707		CKSRYF473Z50
C9751, C9757		CKSSYF104Z16
RESISTORS		
R9703, R9704		RD1/2MMF100J
R9757, R9760		RS1/16S1001F
Other Resistors		RS1/16S###J
OTHERS		
CN9701 SPEAKER TERMINAL 2-P		AKE1041
CN9702 PLUG(6P)		KM200NA6

SP TERMINAL R ASSY

Mark No.	Description	Part No.
COILS AND FILTERS		
L9801, L9802		ATF1206
CAPACITORS		
C9804, C9805		CCSRCH101J50
C9801, C9808-C9811		CCSRCH221J50
C9806		CKSRYB332K50
C9807		CKSRYF473Z50
RESISTORS		
R9803, R9804		RD1/2MMF100J
Other Resistors		RS1/16S###J
OTHERS		
CN9802 SPEAKER TERMINAL 2-P		AKE1041

AV I/O IF ASSY

Mark No.	Description	Part No.
OTHERS		
CN2101 PCISOKET120-P		AKP1220

Mark No.	Description	Part No.

COMM SLOT I/F ASSY

SEMICONDUCTORS

	IC8901	TC74VHC00FT
	Q8902	2SC4116
	D8901, D8902	1SS355

COILS AND FILTERS

	L8901	LCTAW221J3225

CAPACITORS

	C8902	CKSRYB104K25
	C8901	CKSSYF104Z16

RESISTORS

	Other Resistors	RS1/16S###J

OTHERS

	CN8904 EDGE CARD CONN	AKP1252
	CN8902 L-PLUG (10P)	KM200NA10L
	CN8903 L-PLUG (11P)	KM200NA11L
	CN8905 L-PLUG (6P)	KM200NA6L

LED ASSY

SEMICONDUCTORS

	Q9652	DTC143EUA
	Q9651	RN2901
	D9652	SML-310MT
	D9651	SML-311UT

CAPACITORS

	C9652-C9655	CCSRCH101J50
	C9656	CKSRYB103K50
	C9651	CKSSYF104Z16

RESISTORS

	Other Resistors	RS1/16S###J

COMM SLOT ASSY

SEMICONDUCTORS

	IC9451	SP3232ECY
	IC9454	TC74VHC00FT
	IC9455, IC9456	TC74VHC125FT

CAPACITORS

	C9455	CEJQ470M6R3
	C9452, C9473, C9475, C9477	CKSRYB471K50
	C9451, C9453, C9454, C9457, C9458	CKSSYF104Z16
	C9472, C9474, C9476	CKSSYF104Z16

RESISTORS

	Other Resistors	RS1/16S###J

OTHERS

	JA9453 9P D-SUB SOCKET	AKP1240
	3214 SLOT PANEL S(F)	ANG2695
	3526 HEXAGON HEADED SCREW	BBA1051
	3500 SCREW	BMZ30P060FZK
	9451 SCREW TERMINAL	VNE1949

KEY CONTROL ASSY

SEMICONDUCTORS

	IC9001	PD5719A
	Q9001	2SC4116
	D9001-D9003, D9005-D9007	1SS302
	D9004	1SS355

COILS AND FILTERS

	F9001-F9006	DTL1069

CAPACITORS

	C9006-C9008	CCSRCH101J50
	C9005	CEAT470M16
	C9001-C9003	CKSRYB472K50
	C9004	CKSSYF104Z16

RESISTORS

	R9008	RAB4C182J
	Other Resistors	RS1/16S###J

OTHERS

	CN9002 6P FFC CONNECTOR	AKM1208
	X9001 CERALOCK	ASS1162
	CN9001 L-PLUG (3P)	KM200NA3L

FRONT KEY ASSY

SWITCHES AND RELAYS

	S9401-S9406	ASG1088

OTHERS

	CN9400 6P FFC CONNECTOR	AKM1208

DIGITAL VIDEO ASSY

[DIGITAL IF BLOCK]

COILS AND FILTERS

	F5001, F5002, F5004, F5005	ATF1194

RESISTORS

	R5101-R5115, R5131	RAB4C470J
	Other Resistors	RS1/16S###J

OTHERS

	CN5001 114P FFC CONNECTOR	AKM1216
	CN5002 PH 10P CONNECTOR	AKM1281
	K5002-K5004, K5007 TEST PIN	AKX9002

[MODULE UCOM BLOCK]

SEMICONDUCTORS

	IC5206	24LC04B(I)SN
	IC5201	M30626FHPGP-P
	IC5205	PST3628UR
	IC5208	TC74VHC08FT
	IC5213	TC74VHC123AFT
	IC5214, IC5215	TC74VHC32FT
	IC5211, IC5212	TC74VHC541FT
	IC5209	TC7W126FU
	Q5201	2SJ461A
	D5207-D5212	1SS301
	D5217, D5218	1SS355
	D5201	SML-310LT

SWITCHES

	S5201	ASH1047

Mark	No.	Description	Part No.
		CAPACITORS	
	C5213, C5225		ACH1357
	C5206, C5223, C5231, C5245-C5262		CKSRYB102K50
	C5264		CKSRYB102K50
	C5232		CKSRYB104K16
	C5263		CKSRYB104K25
	C5230		CKSRYB105K6R3
	C5205		CKSRYB472K50
	C5201-C5204, C5208, C5210-C5212		CKSSYF104Z16
	C5218, C5224, C5226, C5227		CKSSYF104Z16
	C5243, C5244		CKSSYF104Z16
		RESISTORS	
	R5209, R5211, R5212, R5235		RAB4C101J
	R5254, R5255, R5265, R5266		RAB4C101J
	R5205		RAB4C103J
	R5270, R5271		RAB4C472J
	R5256, R5257		RAB4C474J
	Other Resistors		RS1/16S###J
		OTHERS	
	CN5201 8P PLUG		AKM1225
	CN5202 PH 3P CONNECTOR		AKM1274
	K5201 TEST PIN		AKX9002
⚠	X5201 (16MHz)		ASS1178
		[PANEL FLASH BLOCK]	
		SEMICONDUCTORS	
	IC5305		MBM29PL160BD-75PFTN
	IC5303		PST3612UR
	IC5301		PST3628UR
	IC5302		TC74VHC08FT
	Q5301		RN1901
	D5301-D5310		1SS302
		CAPACITORS	
	C5320		CCSRCH470J50
	C5304, C5307		CKSRYB102K50
	C5311, C5314		CKSRYB104K16
	C5303, C5306		CKSRYB472K50
	C5301, C5302, C5305, C5309, C5313		CKSSYF104Z16
	C5316		CKSSYF104Z16
		RESISTORS	
	R5317, R5318		RAB4C101J
	Other Resistors		RS1/16S###J
		OTHERS	
	CN5301 15P PLUG		AKM1232
	K5301 TEST PIN		AKX9002
⚠	X5302 (85MHz)		ASS1174
⚠	X5301 (60MHz)		ASS1176
		[IC4 BLOCK]	
		SEMICONDUCTORS	
	IC5401		PD5856A
	D5401		SML-310LT
	D5402		SML-310MT
		COILS AND FILTERS	
	F5401, F5403, F5409, F5410		ATF1194
		CAPACITORS	
	C5401, C5413, C5417, C5424 (100microF/16V)		ACH1396
	C5434, C5435		CKSRYB102K50
	C5402-C5412, C5414-C5416		CKSSYF104Z16
	C5418-C5423, C5425-C5431		CKSSYF104Z16
		RESISTORS	
	R5406, R5421		RAB4C101J
	R5408-R5413, R5415, R5416, R5419		RAB4C220J
	R5422		RAB4C220J
	R5405		RS1/16S5601F
	Other Resistors		RS1/16S###J
		OTHERS	
	K5401 TEST PIN		AKX9002
		[ADDRESS CN BLOCK]	
		RESISTORS	
	Other Resistors		RS1/16S###J
		OTHERS	
	CN5521 50P CONNECTOR		AKM1201
⚠	CN5501-CN5508 40P CONNECTOR		AKM1217
	CN5511 30P CONNECTOR		AKM1218
		[DIGITAL DD CON BLOCK]	
		SEMICONDUCTORS	
⚠	IC5602		PQ05DZ11
⚠	IC5603		PQ09DZ11
	Q5601, Q5603		HN1C01FU
	Q5605		RN1901
	D5602, D5603, D5609, D5610		1SS355
	D5601		HZU2.2B
	D5604		UDZS5.1B
		CAPACITORS	
	C5601, C5603, C5607, C5614, C5616 (100microF/16V)		ACH1394
	C5602, C5604, C5615, C5617		CKSRYB103K50
	C5605, C5606, C5610		CKSSYF104Z16
		RESISTORS	
	R5601		ACN1162
	R5627		ACN1168
	Other Resistors		RS1/16S###J
		OTHERS	
⚠	CN5602 PH 7P CONNECTOR 7P		AKM1278
⚠	CN5601 PH 11P CONNECTOR 11P		AKM1282

VIDEO SLOT2 ASSY

Mark	No.	Description	Part No.
		[INPUT REG BLOCK]	
		SEMICONDUCTORS	
	IC7804		BA4558F-HT
⚠	IC8104		PQ015YZ01ZP
⚠	IC8101		PQ05DZ11
⚠	IC8102		PQ09DZ11
⚠	IC8103, IC8105		PQ3DZ13
	IC7803		TC4052BFT
	IC7801, IC7802		TK15420M
	Q7805		2SC4116
	Q7803, Q7804		DTC124EUA
	Q7806		HN1C01FU

Mark No.	Description	Part No.
	D7801-D7804, D7806-D7814	1SS302
	D8106, D8107	1SS302
	D7815, D8101-D8105	1SS355
	COILS AND FILTERS	
	F8101-F8103	ATF1194
	CAPACITORS	
	C7850	CEHAT100M50
	C8105, C8114, C8125, C8130	CEHAT101M10
	C8112	CEHAT101M16
	C7808	CEHAT220M50
	C8101, C8131	CEHAT221M16
	C8122	CEHAT221M6R3
	C7801, C7847, C7848, C8107, C8109	CEHAT470M16
	C8116	CEHAT470M16
	C7806	CEHAT471M16
	C7821, C7825, C7835, C7840, C7851	CEHAT4R7M50
	C7853, C7855	CEHAT4R7M50
	C7827, C7828, C7842, C7843	CKSRYB102K50
	C7857, C7858	CKSRYB102K50
	C7803, C7812, C7814, C7815	CKSRYB103K50
	C7813, C7816, C7817	CKSRYB105K10
	C7823, C7824, C7839, C7844, C7854	CKSRYB221K50
	C7859	CKSRYB221K50
	C7802, C7807, C7820, C7830	CKSSYF104Z16
	C8102-C8104, C8106, C8108	CKSSYF104Z16
	C8110, C8111, C8113, C8115, C8121	CKSSYF104Z16
	C8124, C8126-C8129, C8132	CKSSYF104Z16
	RESISTORS	
	R8113	RS1/16S1001F
	R8112	RS1/16S5100F
	R7808, R7809, R7822, R7823, R7834	RS1/16S75R0F
	R7836, R7837	RS1/16S75R0F
	R8106, R8118	RS1MMF100J
	R8108, R8119-R8121	RS1MMF390J
	Other Resistors	RS1/16S###J
	OTHERS	
	CN7801 DIN SOCKET	AKP1217
	JA7801-JA7803 JACK	DKB1031
	JA7804 JACK	VKB1134
	JA7805 JACK	VKB1150
	7801, 7802 SCREW TERMINAL	VNE1949
	[IC1(Y/C)BLOCK]	
	SEMICONDUCTORS	
	IC6257	24LC01B
	IC6255	PD0278A
	IC6251-IC6254	TC7SHU04FU
	IC6256	TC7W126FU
	Q6255	2SJ461A
	Q6258	DTA124EUA
	Q6251, Q6253	HN1A01FU
	Q6256, Q6257	HN1B04FU
	COILS AND FILTERS	
	F6251-F6254	ATF1194
	L6251, L6253	LCTAW120J2520
	L6252, L6254	LCTAW150J2520
	L6257	LCTAW220J2520
	L6255, L6256	LCTAW330J2520
	CAPACITORS	
	C6305, C6306, C6312, C6313	CCSRCH120J50
	C6272, C6274, C6288, C6290	CCSRCH220J50
	C6249, C6250	CCSRCH471J50
	C6273, C6289	CCSRCH680J50
	C6295, C6321, C6322, C6327-C6330	CEHAT101M10
	C6324	CEHAT470M16
	C6297	CKSQYB225K10
	C6258, C6260	CKSRYB102K50
	C6265, C6268, C6282, C6285	CKSRYB104K16
	C6299, C6300, C6309, C6310, C6316	CKSRYB104K16
	C6323	CKSRYB104K16
	C6201, C6301, C6314	CKSRYB105K10
	C6251, C6253-C6257, C6259	CKSSYF104Z16
	C6261, C6262, C6267, C6269-C6271	CKSSYF104Z16
	C6275-C6279, C6284, C6286, C6287	CKSSYF104Z16
	C6291-C6294, C6296, C6298	CKSSYF104Z16
	C6302-C6304, C6307, C6308, C6311	CKSSYF104Z16
	C6315, C6317-C6320, C6325, C6326	CKSSYF104Z16
	C6252	DCH1165
	RESISTORS	
	R6251-R6254, R6271, R6275, R6276	RAB4CQ100J
	R6329-R6331	RAB4CQ103J
	R6321, R6322, R6334, R6335, R6339	RS1/16S1000F
	R6273, R6289	RS1/16S1001F
	R6305, R6314	RS1/16S1101F
	R6291, R6309, R6313	RS1/16S1301F
	R6323	RS1/16S2400F
	R6277, R6288	RS1/16S2701F
	R6264, R6281	RS1/16S4700F
	R6306, R6307	RS1/16S8201F
	R6255	RS1/16SS100J
	Other Resistors	RS1/16S###J
	OTHERS	
	X6251 CRYSTAL OSCILLATOR	ASS1175
	[IC1(CVBS)BLOCK]	
	SEMICONDUCTORS	
	IC6106	IC42S16100-7TG
	IC6107	PD0278A
	IC6102-IC6105	TC7SHU04FU
	Q6103	DTC124EUA
	Q6101, Q6102	HN1A01FU
	Q6107	HN1B04FU
	COILS AND FILTERS	
	F6102, F6103, F6105, F6106	ATF1194
	L6101, L6103	LCTAW120J2520
	L6102, L6104	LCTAW150J2520
	L6108	LCTAW220J2520
	L6106	LCTAW330J2520
	CAPACITORS	
	C6171, C6172	CCSRCH120J50
	C6126, C6128, C6142, C6144	CCSRCH220J50
	C6127, C6143	CCSRCH680J50
	C6102, C6106, C6115, C6149, C6155	CEHAT101M10
	C6182, C6184, C6186	CEHAT101M10

Mark No.	Description	Part No.
	C6105	CEHAT470M16
	C6151	CKSQYB225K10
	C6112, C6114	CKSRYB102K50
	C6119, C6122, C6136, C6139	CKSRYB104K16
	C6153, C6154, C6168, C6177	CKSRYB104K16
	C6101, C6175, C6190	CKSRYB105K10
	C6103, C6104, C6107-C6111, C6113	CKSSYF104Z16
	C6116, C6121, C6123-C6125	CKSSYF104Z16
	C6129-C6133, C6138, C6140, C6141	CKSSYF104Z16
	C6145-C6148, C6150, C6152	CKSSYF104Z16
	C6156-C6161, C6166, C6167, C6170	CKSSYF104Z16
	C6173, C6174, C6176, C6178-C6181	CKSSYF104Z16
	C6183	CKSSYF104Z16
RESISTORS		
	R6163, R6166, R6178, R6180	RAB4CQ0R0J
	R6101, R6104-R6106, R6120	RAB4CQ100J
	R6124, R6125	RAB4CQ100J
	R6153-R6155	RAB4CQ103J
	R6210-R6213	RAB4CQ121J
	R6146, R6159, R6184	RAB4CQ330J
	R6156, R6160, R6161, R6194, R6195	RS1/16S1000F
	R6122, R6140	RS1/16S1001F
	R6175	RS1/16S1101F
	R6147, R6174	RS1/16S1301F
	R6196	RS1/16S2400F
	R6126, R6138	RS1/16S2701F
	R6113, R6129	RS1/16S4700F
	R6167, R6168	RS1/16S8201F
	R6107	RS1/16SS100J
	R6157, R6158, R6182- R6183	RS1/16SS330J
	Other Resistors	RS1/16S###J
[SINGLE SW BLOCK]		
SEMICONDUCTORS		
	IC7902	AN5870SB
	IC7908	TC74VHC08FT
	IC7907	TC74VHC126FT
	IC7905	TC74VHCT541AFT
	Q7903, Q7905, Q7910	DTC124EUA
	Q7913, Q7916	HN1A01FU
	Q7901, Q7906, Q7911, Q7915	HN1C01FU
	Q7914	RN1902
CAPACITORS		
	C7923, C7925, C7926	CEHANP470M10
	C7905	CEHAT101M10
	C7902, C7928, C7929, C7931	CEHAT470M16
	C7908, C7912, C7917	CEHAT471M16
	C7907, C7911, C7916	CKSRYB103K50
	C7924, C7927, C7930	CKSRYB105K10
	C7906, C7909, C7910, C7914, C7918	CKSRYF103Z50
	C7903, C7904, C7913, C7915	CKSSYF104Z16
	C7920-C7922, C7932, C7943	CKSSYF104Z16
RESISTORS		
	R7902, R7907, R7910, R7914	RAB4CQ0R0J
	R7917, R7918, R7935	RAB4CQ0R0J
	R7903	RAB4CQ103J
	R7905, R7909, R7912	RS1/16S27R0F
	R8040-R8042	RS1/16S75R0F
	Other Resistors	RS1/16S###J

Mark No.	Description	Part No.
OTHERS		
	3002 SLOT PANEL 262 (CM)	ANG2710
	3201 SCREW	BMZ30P080FZK
	3202 SCREW	BPZ30P080FZK

6. ADJUSTMENT

1. At shipment, the unit is adjusted to its best conditions. Normally, it is not necessary to readjust even if an assembly is replaced. If the adjustment is shifted or if it becomes necessary to readjust because of part replacement, etc., perform the adjustment as described below.
2. Any value changed in Service/Factory mode will be stored in memory as soon as it is changed. Before readjustment, take note of the original values for reference in case you need to restore the original settings.
3. Use a stable AC power supply.

6.1 ADJUSTMENT REQUIRED WHEN THE SET IS REPAIRED OR REPLACED

■ When any of the following assemblies is replaced

POWER SUPPLY Unit	No adjustment required
DIGITAL VIDEO Assy	Copy of backup data requires. • When adjust with the service factory mode, refer to "10.DIGITAL EEPROM" of "6.2 SERVICE FACTORY MODE." • When adjust with the command, refert to "7.1.6 BACKUP THE ADJUSTMENT VALUES FOR THE MAIN UNIT."
50 X DRIVE Assy	No adjustment required
50 Y DRIVE Assy	No adjustment required
AV I/O Assy	No adjustment required
RGB Assy	No adjustment required
VIDEO SLOT Assy	No adjustment required
Other assemblies	No adjustment required
Service Panel	Refer to "6.4 METHOD FOR REPLACING THE SERVICE PANEL ASSY."

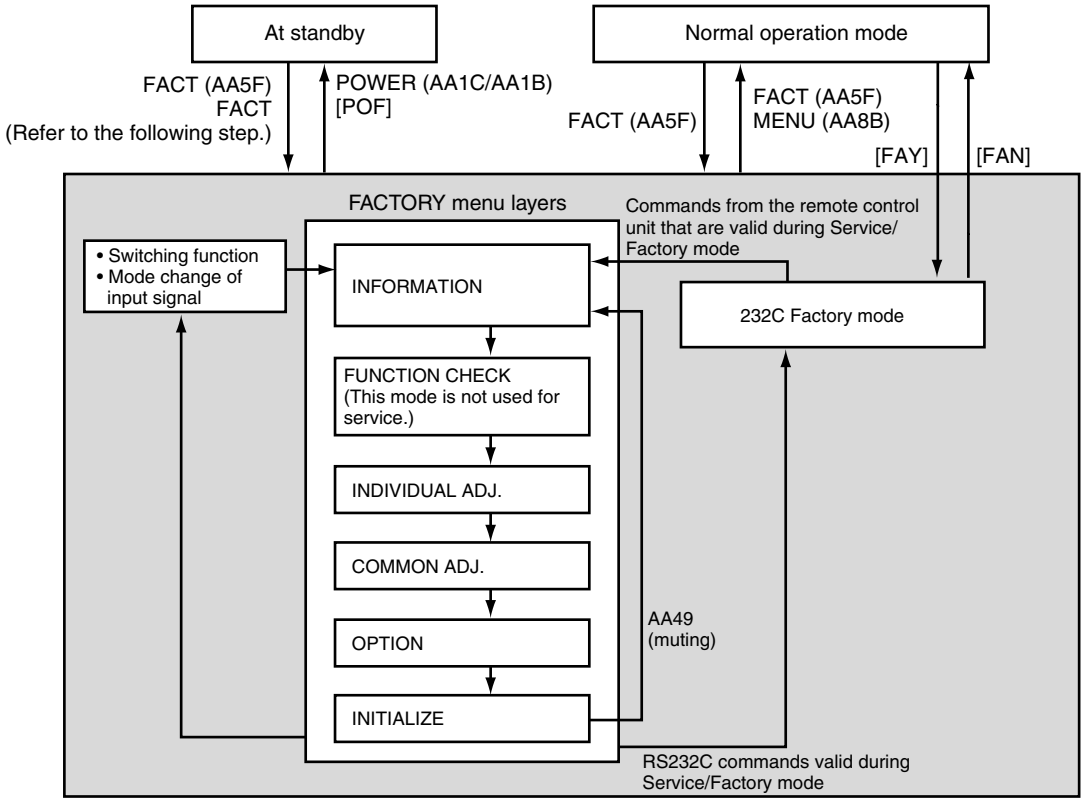
■ When any part in the following assemblies is replaced

POWER SUPPLY Unit	The assembly must be replaced as a unit, and no part replacement is allowed.
DIGITAL VIDEO Assy	No adjustment required
50 X DRIVE Assy	No adjustment required
50 Y DRIVE Assy	No adjustment required
AV I/O Assy	Replacement and repair of IC6810, IC7610 and IC8705 are impossible.
RGB Assy	Replacement and repair of IC6001, IC6401, IC6403, IC6601, IC6602 and IC7205 are impossible.
VIDEO SLOT Assy	Replacement and repair of IC6107, IC6255, IC6257 and IC7902 are impossible.
Other assemblies	No adjustment required

6.2 SERVICE FACTORY MODE

Commands in Service/Factory mode must be issued using the remote control unit supplied with the Plasma Display.

State Transition Diagram



6.3 HOW TO ENTER FACTORY MODE

For adjustments, it is necessary to enter Service/Factory mode. There are two ways to enter Service/Factory mode: by using the remote control unit, or by using RS232C commands from your PC.

When the unit is in Standby (STB) Mode

• Please refer to the technical document (Service Knowhow)

When the power is on

No.	Method	Procedures
1	Remote control unit	When the conventional Service/Factory code (AA5F) is sent, the unit will enter Service/Factory mode.
2	PC	Connect your PC via its RS232C port, and send the FAY command.

■ Operation when Service/Factory mode is entered

● Functions whose settings are set to OFF

The settings of the following functions are set to OFF when Service/Factory mode is entered (including when this mode is entered by receiving the FAY command):

- SPLIT (The display will become that of the main input.) (for PDP-5004, PDP-4304 only)
- MASK CONTROL
- ORBITER

● User's setting data

User setting data are set as follows:

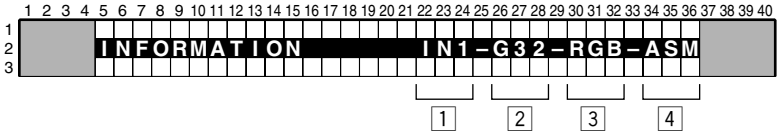
- Although user's adjustment data for video/audio adjustment and various adjustment are stored in memory, they are not reflected on the display.
- Although user's adjustment data for SCREEN are stored in memory, SCREEN adjustment data are reset to the default settings.
- Screen size and sound volume reflect user settings.
- The COLOR DECODING and SIGNAL FORMAT settings are reset to the default values.

■ Functions of the keys on the remote control unit in Service/Factory mode

SR Function	Main Function	Description
MUTING	Switching main items	For shifting to the next (top) main item
▼ (DOWN)	Switching subitems	For shifting to the next (downward) subitem
▲ (UP)	Switching subitems	For shifting to the previous (upward) subitem
◄ (LEFT)	Increasing adjustment value	For increasing adjustment value
► (RIGHT)	Decreasing adjustment value	For decreasing adjustment value
SET	Shifting layers	For shifting to lower or upper layer
INPUT ∗	Switching inputs	For switching the input to ∗
STANDBY/ON	POWER OFF	For turning off the power
FACTORY	Service/Factory OFF	For setting Service/Factory mode to OFF
MENU	Service/Factory OFF	For setting Service/Factory mode to OFF
SPLIT	Main screen/Sub screen change	MAIN ↔ SUB (for PDP-5004, PDP-4304 only)

Main-item indications

Four parameters are displayed:



1 Input function

Input Functions	On-Screen Display
IN1 to IN5	IN1 to IN5

2 SIG mode and screen size

Note: See SIG-Mode Tables. (See next page.)

3 Color system and signal type

Color System and Signal Type		On-Screen Display
NTSC	Composite input/ S-connector input	NTV/NTS
BLACK/WHITE		BWV/BWS
Y/Cb/Cr, Y/Pb/Pr		CBR
RGB		RGB
Digital video signal		DIG

4 Option (Destination, etc.)

Options	On-Screen Display
PDP-5004 / PDP-4304	ASM
PDP-5014 / PDP-4314	ABM

● SIG-Mode Table

The signal mode is displayed in three characters:

First character: Resolution of the input signal (numerics for the video signals, and alphabetics for the PC signals)
Second character: Grouping of the vertical frequencies

2nd Character	Reference Vertical Frequency	Area	Remarks
–	–	– 20.0	No signal
B		20.0 to 28.0	
C		28.0 to 45.0	
1	50	45.0 to 54.5	
2	56	54.5 to 58.2	
3	60	58.2 to 63.0	
4	66	63.0 to 68.0	
5	70	68.0 to 73.4	
6	For interpolation of 72-Hz	73.4 to 73.9	For distinguishing between 70-Hz or 75-Hz area
7	75	73.9 to 80.0	
8	85	80.0 to 88.5	
?	–	91.5 –	Out of range

Third character: Selection of the screen size by the user is displayed.
(○: available, ×: not available)

3rd Character	Description on GUI	VIDEO	PC
0	DOT BY DOT	×	○
1	4 : 3	○	○
2	FULL	○	○
3	ZOOM	○	×
4	WIDE	○	×
6	CINEMA	○	×

● SIG-Mode Table

SIG-Mode table for video signals

SIG-Mode	Signal Type	Vertical Freq. fv (Hz)	Horizontal Freq. fh (kHz)	Dot Clock (MHz)	Remarks
13*	SDTV • 480i	60.000	15.734	13.5	
33*	SDTV • 480p	60.000	31.469	27.000	
43*	HDTV • 1080i	60.000	33.750	74.250	
63*	HDTV • 720p	60.000	45.000	74.250	

***: Represents the current screen-size selected.**

SIG-Mode table for PC signals

SIG-Mode	Signal Type	Vertical Freq. fv (Hz)	Horizontal Freq. fh (kHz)	Dot Clock (MHz)	Remarks
A2*	640 × 400	56.422	24.825	21.052	Former 720 × 400
A5*	720 × 400	70.087	31.469	28.322	Former 640 × 400
A8*	720 × 400	85.050	37.861	35.438	New
B1*	640 × 480	49.673	24.688	19.750	640 × 480 For rescan (48/50Hz)
B3*		59.940	31.469	25.175	
B4*		66.666	35.000	30.240	
B6*		72.809	37.861	31.500	
B7*		75.000	37.500	31.500	
B8*		85.000	43.300	36.000	
C1*	848 × 480	49.540	24.621	26.000	848 × 480 For rescan (48/50Hz)
C3*		60.000	31.020	33.750	
D2*	800 × 600	56.250	35.158	36.000	
D3*		60.317	37.879	40.000	
D6*		72.188	48.077	50.000	
D7*		75.000	46.875	49.500	
D8*		85.061	53.674	56.250	
E7*	832 × 624	74.550	49.725	57.283	
F1*	1024 × 768	48.003	38.690	52.000	1024 × 768 For rescan (48/50Hz)
F3*		60.004	48.363	65.000	
F5*		70.069	56.476	75.000	
F7*		75.029	60.023	78.750	
F8*		84.997	68.677	94.500	
G1*	1280 × 768	48.014	38.507	65.000	1280 × 768 For rescan (48/50Hz)
G2*		56.250	45.113	76.150	
G3*		59.870	47.776	79.500	
G5*		69.843	56.014	95.000	
O3*	1280 × 720	59.943	44.718	74.410	

*** : Represents the current screen-size selected.**

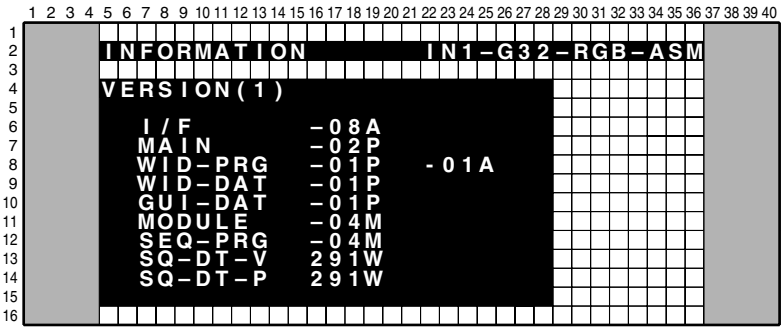
INFORMATION mode

Select the main item "INFORMATION" using the MUTE key then select the subitems shown in the table below using the ▲ or ▼ key.

● Operation items

No.	Function / Display	Content	232C Command
1	VERSION (1)	The flash memory versions for each device are displayed (1)	GS1
2	VERSION (2)	The type of video card inserted in the slot is displayed:	
3	SERIAL	For displaying the serial number of the product	GNP
4	PANEL PD	Power-down and its time of occurrence are displayed. The values can be cleared.	GPD
5	PANEL SD	Shutdown and its time of occurrence are displayed. The values can be cleared.	GNG
6	TEMPERATURE	Information on temperature is displayed.	GS2
7	HOUR METER	Cumulative power-on time is displayed. The value can be cleared.	GS2
8	PULSE METER	The pulse meter values at each block are displayed. The values can be cleared.	GPM
9	P ON COUNTER	The number of times the power was turned on is displayed. The value can be cleared.	GPC
10	DIGITAL EEPROM	The status of the backup data for the module microcomputer is displayed and updated.	GS2
11	HDMI SIGNAL INFO 1	The status-register data for the HDMI receiver are read out and displayed in hexadecimal notation.	_
12	HDMI SIGNAL INFO 2		

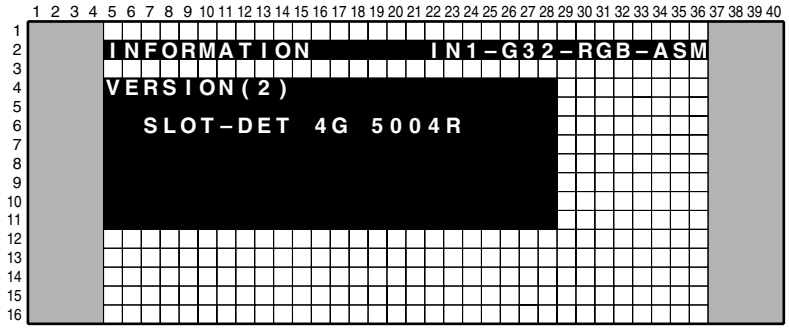
1. VERSION (1)



The flash memory versions for each device are displayed.

On-Screen Display	Flash memory of Device
I / F	User IF microcomputer
MAIN	Main microcomputer
WID–PRG	Program for IC3, Boot program for IC3
WID–DAT	Extension Engin data for IC3
GUI-DAT	GUI data for IC3
MODULE	Module microcomputer
SEQ–PRG	Program for IC4
SQ–DT–V	Sequence data for IC4 (for VIDEO)
SQ–DT–P	Sequence data for IC4 (for PC)

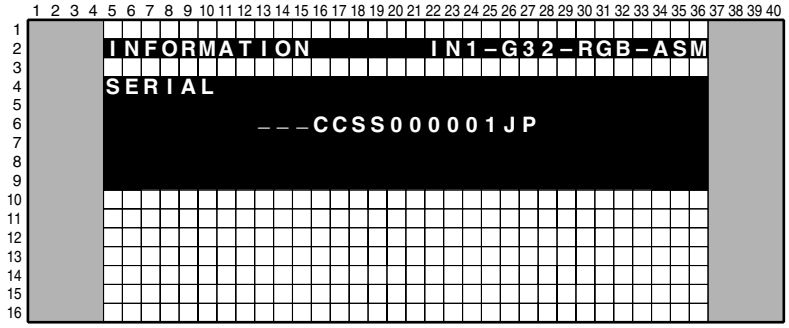
2. VERSION (2)



Whether or not the video card has been inserted:

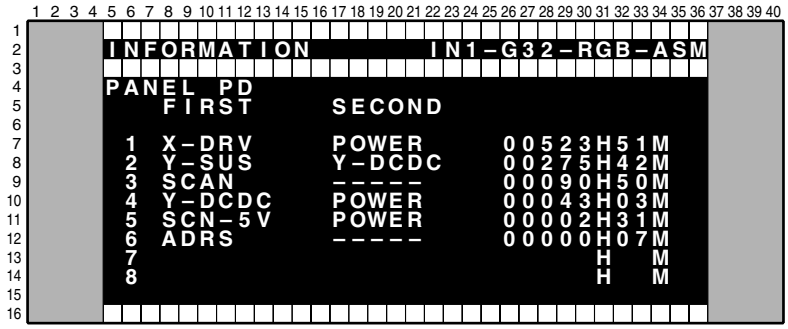
Device	Name Indication	Type of VIDEO SLOT Assy	Remarks
SLOT-DET	SLOT-DET	(No indication)	No card inserted.
		4G 5004R	The video card has been iserted correctly.

3. SERIAL



The serial number of the product is displayed.

4. PANEL PD



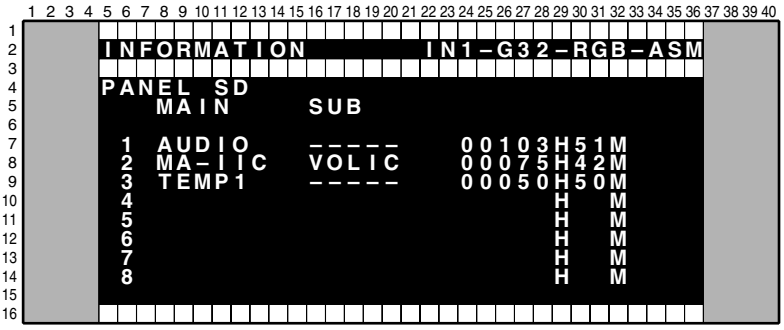
The log of the past eight power-downs is displayed. Power-down points (first and second) and the hour meter value when the power-down was generated are displayed, with the latest power-down data at the top.
The meanings of indications for power-down points are shown in the table below.

• Power-down information

Type of Power-down	On-Screen Display	Type of Power-down	On-Screen Display
No corresponding item	- - - - -	Power-down of the Y-SUS system	Y-SUS
Power-down of the main power supply system	POWER	Power-down of the address system	ADRS
Power-down of the scanning system	SCAN	Power-down of the X-DRIVE circuitry	X-DRV
Power-down in the path between the scanning system and 5-V power supply	SCN-5V	Power-down of the X-DC/DC converter	X-DCDC
Power-down of the Y-Drive system	Y-DRV	Power-down of the X-SUS system	X-SUS
Power-down of the Y-DC/DC converter	Y-DCDC	Power-down of the driving IC power supply system	D-DCDC
PD which cannot be specified	UNKNOWN		

*1: If an activated protection circuit could not be identified after the power-down, it is treated as an unidentifiable power-down (UNKNOWN).

5. PANEL SD



The log of the past eight shutdowns is displayed. Shutdown points and the hour meter value when the shutdown was generated are displayed, with the latest shutdown data at the top.
The meanings of indications for shutdown points are shown in the table below.

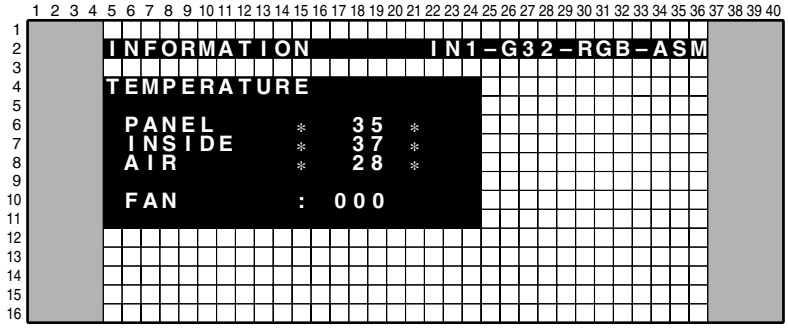
• Panel shutdown information

Type of Shutdown	On-Screen Display (MAIN)	Subcategory
Abnormality in IC4 communication	IC4	
Abnormality in module microcomputer IIC communication	MD-IIC	Exists.
DIGITAL-DCDC power decrease	RST2	
Abnormality in panel temperature	TEMP1	
Short-circuiting of the speakers	AUDIO	
Abnormality in module microcomputer communication	MODULE	
Abnormality in three-wire serial communication of the main microcomputer	MA-SRL	Exists.
Abnormality in main microcomputer IIC communication	MA-IIC	Exists.
Abnormality in main microcomputer communication	MAIN	
FAN stopped	FAN	
Abnormality in unit temperature	TEMP	Exists.
Abnormality in the ASIC power on the main microcomputer side	M-DCDC	
Other failures	ETC	Exists.

• Subcategory information

Type of Shutdown	Subcategory
MD-IIC	EEPROM4K, EROM2K
MA-SRL	IF microcomputer, IC2 (IC7004)(IC8702), IC3 (IC7101)
MA-IIC	MA-EEP (IC7205), IC1-V (IC6107), IC1-Y (IC6255), AD-M (IC6001), AD-S (IC6602), SL-EEP (IC6257), IC6/1 (IC5701), IC6/2 (IC5801), VOLIC (IC7603), HDMI 2 (IC6810)
TEMP	INSIDE/AIR (INSIDE = TEMP2/AIR =TEMP3)
ETC	VCC-D1, VCC-D2, VCC-D4 (IC6809)

6. TEMPERATURE

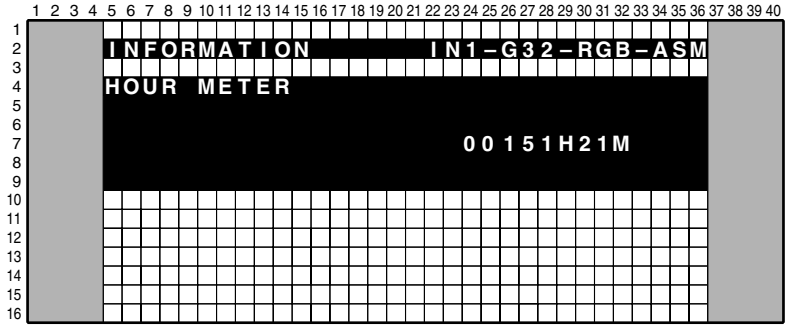


Data from each temperature sensor and the fan output value are displayed:

- Temperature sensors [°C]
  PANEL: Sensor temperature of a panel part (Reference value)
  INSIDE: Temperature inside the unit (Reference value)
  AIR: Ambient temperature around the unit (Reference value)
- Fan output: Fan output data

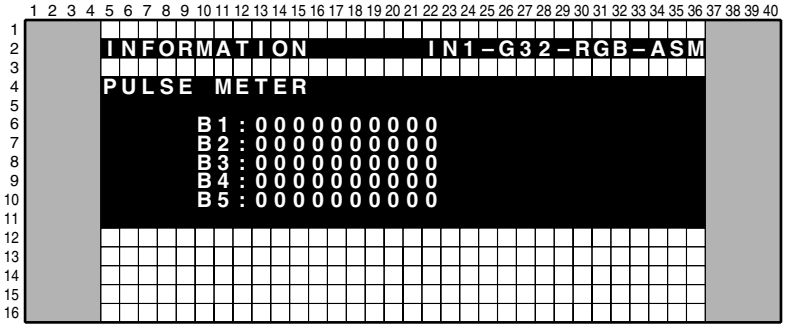
To update the temperature values or fan output data, use the [◄] or [►] key.

7. HOUR METER



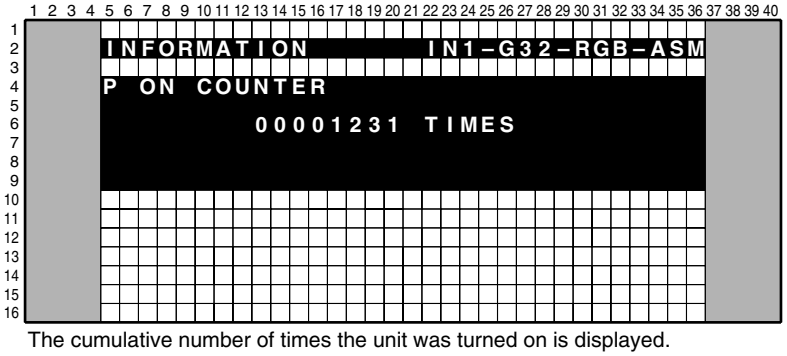
The cumulative power-on time is displayed.

8. PULSE METER



The cumulative number of pulses is displayed.

9. P ON COUNTER

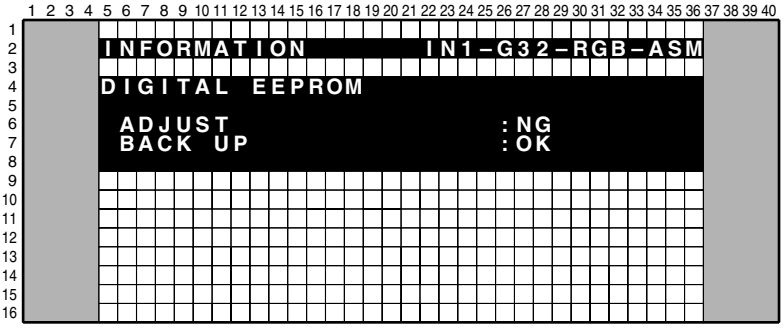


The cumulative number of times the unit was turned on is displayed.

10. DIGITAL EEPROM

When the DIGITAL VIDEO Assy is to be replaced, the adjustment values in it are temporarily stored in the backup ROM then are written on the new Assy after replacement.

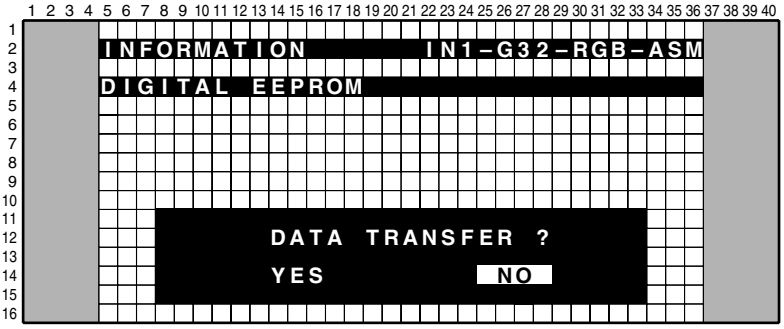
① Check if adjustment has been made on the DIGITAL VIDEO Assy or not (i.e., in the state of a new service part), and if the data on any adjustment values are retained in the backup ROM or not.



- ADJUST: OK (DIGITAL VIDEO Assy adjusted)
  NG (DIGITAL VIDEO Assy not adjusted)
- BACKUP: OK (Adjustment data retained in the backup ROM)
  NG (Adjustment data not retained in the backup ROM)

② Downloading the data for the DIGITAL VIDEO Assy from the backup ROM

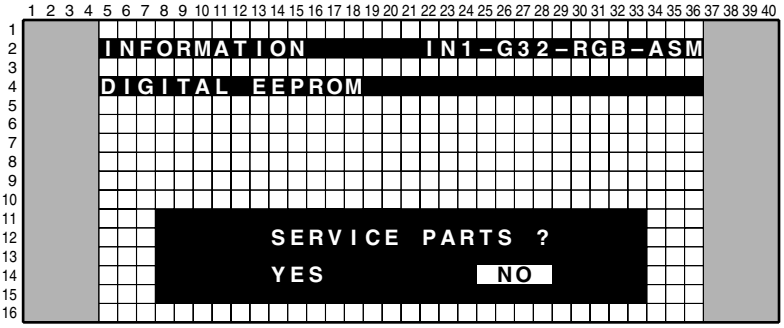
- Press the SET key while display ① above is displayed, and the following display will appear.



- Move the cursor to YES and press the SET key.
  The data in the backup ROM are copy to the DIGITAL VIDEO Assy.
  (When a new DIGITAL VIDEO Assy has been mounted, it now has the adjustment data suited for the panel.)
- Move the cursor to NO, and press the SET key.
  Copy of the data to the DIGITAL VIDEO Assy will not be executed.

③ Clearing the data in the ROM of the DIGITAL VIDEO Assy

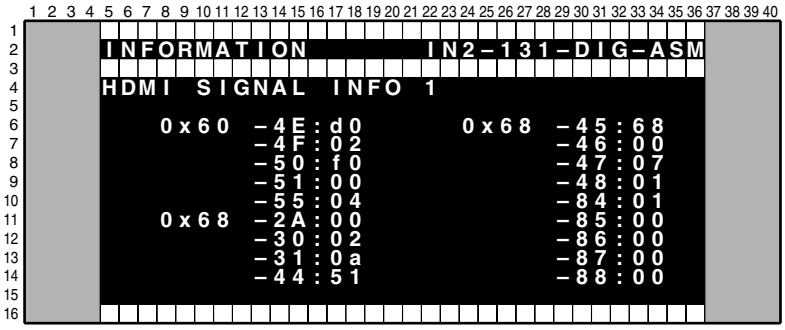
- When YES or NO is selected while display ② above is displayed, the following display will appear.



- Move the cursor to YES and press the SET key.
  The data in the ROM of the DIGITAL VIDEO Assy are cleared, and the Assy has no specific adjustment data.
- Move the cursor to NO and press the SET key. The data in the ROM of the DIGITAL VIDEO Assy are not cleared.
  When YES selected on display ② and the data were copy, select NO on this display.

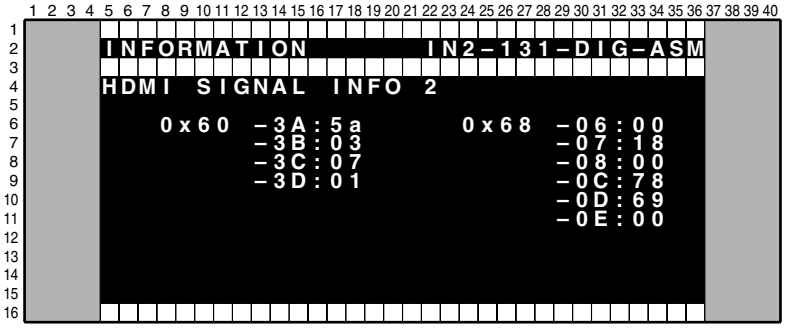
Note: When YES or NO is selected on display ③ above, the display returns to that of ① above.

11. HDMI SIGNAL INFO 1



- The status-register data for the HDMI receiver are read out and displayed in hexadecimal notation.
- If an input function other than HDMI is selected, the indication for HDMI is grayed, and the parameter indication is "--".
- To update the status data, use the left/right keys.

12. HDMI SIGNAL INFO 2



- The status-register data for the HDMI receiver are read out and displayed in hexadecimal notation.
- If an input function other than HDMI is selected, the indication for HDMI is grayed, and the parameter indication is "--".
- To update the status data, use the left/right keys.

Adjustment of corresponding route unevenness

Basically, only replacement of service parts is required, and adjustment is not required.

No.	Command	Adjustment Parameter Name in Factory	Function
1	VSG	CVY GAIN	IC1 MAIN GAIN adjustment (switching routes with the SWM [main] and SWS [sub] commands)
2	VSO	CVY OFFSET	IC1 MAIN OFFSET adjustment (switching routes with the SWM [main] and SWS [sub] commands)
3	RYG	RY GAIN	AD R GAIN adjustment (correction in differences between component- and RGB-system signals)
4	GYG	GY GAIN	AD G GAIN adjustment (correction in differences between component- and RGB-system signals)
5	BYG	BY GAIN	AD B GAIN adjustment (correction in differences between component- and RGB-system signals)
6	ADC	AD MAIN CONTRAST	AD MAIN RGB GAIN adjustment (for main screen)
7	MRG	AD MAIN R GAIN	AD MAIN R GAIN adjustment (for main screen)
8	MGG	AD MAIN G GAIN	AD MAIN G GAIN adjustment (for main screen)
9	MBG	AD MAIN B GAIN	AD MAIN B GAIN adjustment (for main screen)
10	MRO	AD MAIN R OFFSET	AD MAIN R OFFSET adjustment (for main screen)
11	MGO	AD MAIN G OFFSET	AD MAIN G OFFSET adjustment (for main screen)
12	MBO	AD MAIN B OFFSET	AD MAIN B OFFSET adjustment (for main screen)
13	SRG	AD SUB R GAIN	AD SUB R GAIN adjustment (for sub screen)
14	SGG	AD SUB G GAIN	AD SUB G GAIN adjustment (for sub screen)
15	SBG	AD SUB B GAIN	AD SUB B GAIN adjustment (for sub screen)
16	SRO	AD SUB R OFFSET	AD SUB R OFFSET adjustment (for sub screen)
17	SGO	AD SUB G OFFSET	AD SUB G OFFSET adjustment (for sub screen)
18	SBO	AD SUB B OFFSET	AD SUB B OFFSET adjustment (for sub screen)

Reference: Commands for adjustment of differences in signals and memory cells used for storing adjustment values

• Basically no adjustment is required for the Service Assy, as it is properly adjusted before shipment.

Adjustment values to be stored in the EEPROM of the AV I/O (INDIVIDUAL mode)

Adjustment values differ depending on the input function, input signal format, and main/sub screen.

Input and Signal Format	Commands for Adjustment	
	Route for the Main Screen	Route for the Sub Screen
INPUT1 (RGB)	RYG GYG BYG	RYG GYG BYG
INPUT1 (Color difference)	RYG GYG BYG	RYG GYG BYG

- Four adjustment tables are provided here, depending on the input function, input signal format, and main/sub screen.
- No adjustment is required for INPUT 2, which is of HDMI (digital video interface) standards.

Adjustment values to be stored in the EEPROM of the VIDEO SLOT 2 Assy

Adjustment values differ depending on the input function and main/sub screen.

Input and Signal Format	Commands for Adjustment	
	Route for the Main Screen	Route for the Sub Screen
INPUT3 (Y/C)	VSG VSO	RYG GYG BYG
INPUT4 (Comp. V)	VSG VSO	RYG GYG BYG
INPUT5 (RGB)	RYG GYG BYG	RYG GYG BYG
INPUT5 (Color difference)	RYG GYG BYG	RYG GYG BYG

- Eight adjustment tables are provided here, depending on the input function and main/sub screen.

Adjustment values to be stored in the EEPROM of the RGB (COMMON mode)

Adjustment values differ depending on the signal resolution, input signal format, and main/sub screen.

Note: No adjustment is required for HDMI input or signals converted to digital signals by IC1.

[Main adjustment 1]
Main A/D adjustments for R, G, and B individually (COMMON-RGB mode)

Input and Signal Format	Commands for Adjustment		Conditions for the Tables to be Switched
480i (RGB)	MRG MGG MBG	MRO MGO MBO	Video RGB signals
480i (Color difference)	MRG MGG MBG	MRO MGO MBO	Video color-difference signals
VGA (RGB)	MRG MGG MBG	MRO MGO MBO	PC signals (640x400 - 832x624)
XGA (RGB)	MRG MGG MBG	MRO MGO MBO	PC signals (1024x768 - 1280x768)

- To adjust the video signals, input corresponding signals to INPUT 5 to change the RGB/color-difference signal setting then perform adjustment.
- To adjust the PC signal, input a signal to INPUT 1. Make sure that the SIGNAL FORMAT setting is correctly made. Then adjust the signal.
- Four adjustment tables are provided here, depending on the signal resolution, input signal format, and main/sub screen.

[Sub adjustment 1]
Main A/D adjustments for R, G, and B individually (COMMON-RGB 1 mode)

Input and Signal Format	Commands for Adjustment		Conditions for the Tables to be Switched
RGB	SRG SGG SBG	SRO SGO SBO	All R, G, and B signals
Color difference	SRG SGG SBG	SRO SGO SBO	All color-difference signals

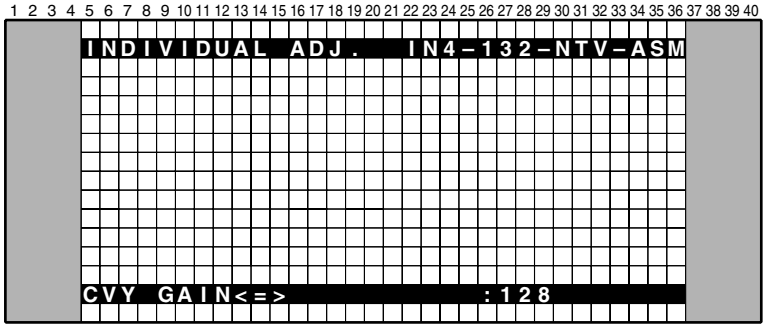
- For adjustment according to the above tables, input video signals to INPUT 5 to switch to the route for sub input and to change the RGB/color-difference signal setting then perform adjustment.
- Two adjustment tables are provided here, depending on the signal format.

[Main adjustment 2]
Main A/D adjustments for all R, G, and B simultaneously (COMMON-RGB 2 mode)

Input and Signal Format	Commands for Adjustment	Conditions for the Tables to be Switched
RGB	ADC	All R, G, and B signals
Color difference	ADC	All color-difference signals

- For adjustment according to the above tables, input video signals to INPUT 5 to switch to the route for main input and to change the RGB/color-difference signal setting then perform adjustment.
- A contrast gain commits this adjustment command simultaneously three colors.
- Two adjustment tables are provided here, depending on the signal format.

INDIVIDUAL ADJ. mode



Each time the ▲ or ▼ key is pressed, the individual adjustment items are changed, as follows:

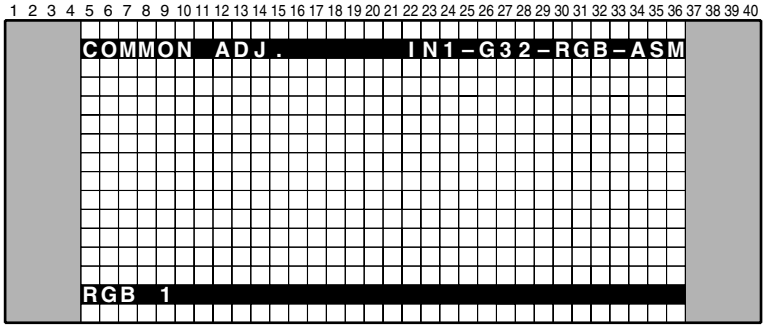
No.	Corresponding 232C Command	Function/Display	Content	Adjustable Range	Remarks
1	VSG	CVY GAIN<=> : ***	MICHAEL (IC6255) input GAIN adj.	064 to 191	Select a route with the command SWM (main) and the command SWS (sub).
2	VSO	CVY OFFSET<=> : ***	MICHAEL (IC6255) input OFFSET adj.	064 to 191	
3	RYG	RY GAIN<=> : ***	AD (IC6001 or IC6602) R input GAIN adj.	000 to 255	The memory tables for the RGB and component systems are separate, and are switchable with the command MCD.
4	GYG	GY GAIN<=> : ***	AD (IC6001 or IC6602) G input GAIN adj.	000 to 255	
5	BYG	BY GAIN<=> : ***	AD (IC6001 or IC6602) B input GAIN adj.	000 to 255	

"***" in the table above represents the adjustment value.
The value of each subitem can be changed using the ◄ or ► key.

Notes:

- The differences in signals for the main and sublevel screens from the AV I/O Assy are compensated, and the compensation data are stored in the EEPROM (IC8705) for each screen.
- No adjustment required normally.

COMMON ADJ. mode

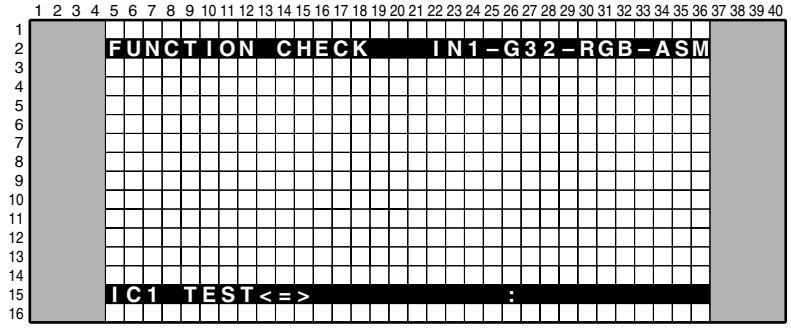


Each time the ▲ or ▼ key is pressed, the subitems are changed, as follows:

- RGB1(+) : Adjustment of the VIDEO SLOT 2 Assy and the RGB Assy
- RGB2(+) : Adjustment of the RGB Assy
- PANEL1(+) : Adjustment items related to the drive (common to the unit)
- PANEL2(+) : Adjustment items related to the drive (dependent on signals)

Each time the SET key is pressed, items grouped under the subitem are selected one by one.

FUNCTION CHECK mode

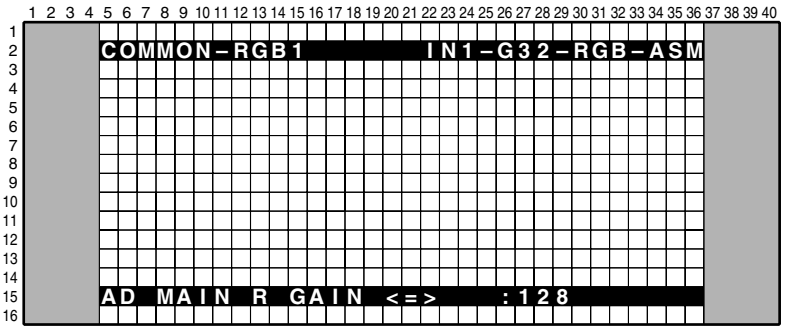


Each time the ▲ or ▼ key is pressed, the individual adjustment items are changed, as follows:

No.	Display	Function
1	IC1 TEST<=> :	(Not used)
2	IC2 TEST<=> :	(Not used)
3	IC3 TEST<=> :	(Not used)
4	IC4 TEST<=> :	(Not used)
5	FAN<=> :***	The rotation speed of the fan is forcibly switched. (*)

Note (*):
- The operation of the fan can be checked by setting FAN to MAX.
- Set to CNT normally.

1. COMMON-RGB1



Each time the ▲ or ▼ key is pressed, the subitems are changed, as follows:

When the main input is selected

No.	Corresponding 232C Command	Function/Display	Content	Adjustable Range	Remarks
1	MRG	AD MAIN R GAIN <=> : ***	AD (IC6001) MAIN R GAIN adj. (for main screen)	000 to 255	
2	MGG	AD MAIN G GAIN <=> : ***	AD (IC6001) MAIN G GAIN adj. (for main screen)	000 to 255	
3	MBG	AD MAIN B GAIN <=> : ***	AD (IC6001) MAIN B GAIN adj. (for main screen)	000 to 255	
4	MRO	AD MAIN R OFFSET <=> : ***	AD (IC6001) MAIN R OFFSET adj. (for main screen)	000 to 255	
5	MGO	AD MAIN G OFFSET <=> : ***	AD (IC6001) MAIN G OFFSET adj. (for main screen)	000 to 255	
6	MBO	AD MAIN B OFFSET <=> : ***	AD (IC6001) MAIN B OFFSET adj. (for main screen)	000 to 255	

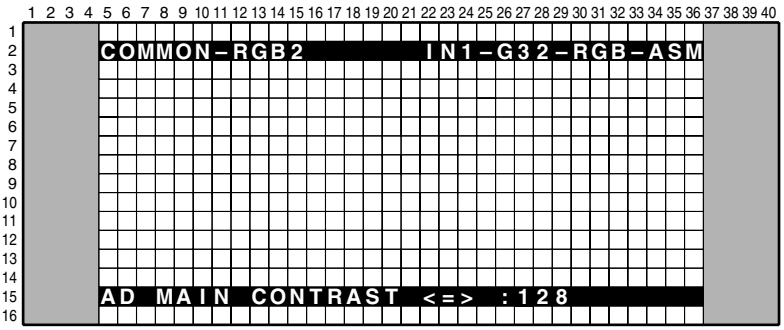
When the sub input is selected

No.	Corresponding 232C Command	Function/Display	Content	Adjustable Range	Remarks
1	SRG	AD SUB R GAIN <=> : ***	AD (IC6602) SUB R GAIN adj. (for sub screen)	000 to 255	
2	SGG	AD SUB G GAIN <=> : ***	AD (IC6602) SUB G GAIN adj. (for sub screen)	000 to 255	
3	SBG	AD SUB B GAIN <=> : ***	AD (IC6602) SUB B GAIN adj. (for sub screen)	000 to 255	
4	SRO	AD SUB R OFFSET <=> : ***	AD (IC6602) SUB R OFFSET adj. (for sub screen)	064 to 191	
5	SGO	AD SUB G OFFSET <=> : ***	AD (IC6602) SUB G OFFSET adj. (for sub screen)	064 to 191	
6	SBO	AD SUB B OFFSET <=> : ***	AD (IC6602) SUB B OFFSET adj. (for sub screen)	064 to 191	

"***" in the table above represents the adjustment value.
The value of each subitem can be changed using the ◄ or ► key.

Notes: • The differences in signals for the main and sublevel screens from the RGB Assy are compensated, and the compensation data are stored in the EEPROM (IC7205) for each screen.
• No adjustment required normally.

2. COMMON-RGB 2

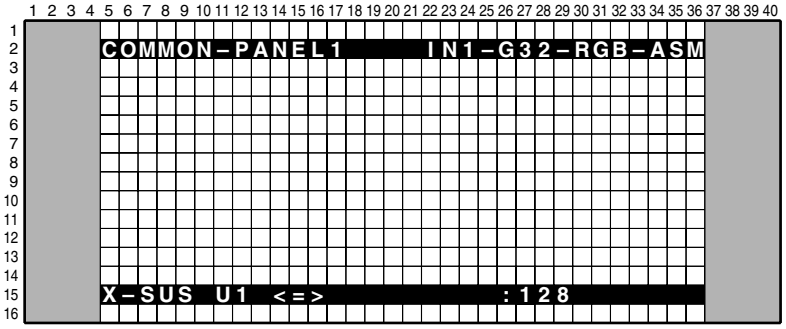


No.	Corresponding 232C Command	Function/Display	Content	Adjustable range	Remarks
1	ADC	AD MAIN CONTRAST<=> : ***	AD (IC6001) MAIN RGB GAIN adj. (for main screen)	000 to 255	

"***" in the table above represents the adjustment value.
The value of each subitem can be changed using the ◄ or ► key.

Note: No adjustment required normally.

3. COMMON-PANEL1



Each time the ▲ or ▼ key is pressed, the subitems are changed, as follows:

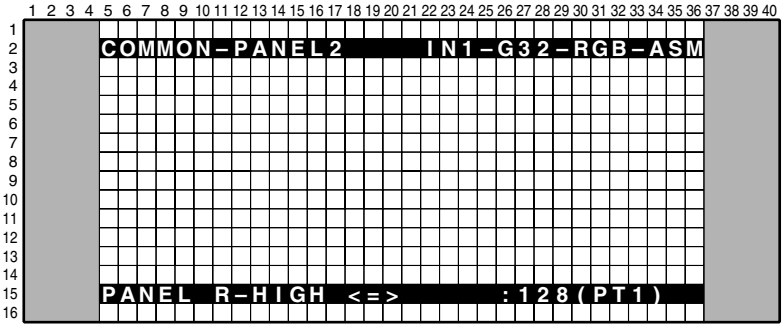
No.	Corresponding 232C Command	Function/Display	Content	Adjustable Range
1	XU1	X-SUS U1 <=> : ***	Adjustment of X-SUS leading edge pulse U1	124 to 132
2	XU2	X-SUS U2 <=> : ***	Adjustment of X-SUS leading edge pulse U2	124 to 132
3	XD1	X-SUS D1 <=> : ***	Adjustment of X-SUS trailing edge pulse D1	124 to 132
4	XD2	X-SUS D2 <=> : ***	Adjustment of X-SUS trailing edge pulse D2	124 to 132
5	YU1	Y-SUS U1 <=> : ***	Adjustment of Y-SUS leading edge pulse U1	124 to 132
6	YU2	Y-SUS U2 <=> : ***	Adjustment of Y-SUS leading edge pulse U2	124 to 132
7	YD1	Y-SUS D1 <=> : ***	Adjustment of Y-SUS trailing edge pulse D1	124 to 132
8	YD2	Y-SUS D2 <=> : ***	Adjustment of Y-SUS trailing edge pulse D2	124 to 132
9	YD3	Y-SUS D3 <=> : ***	Adjustment of X-SUS trailing edge pulse D3	124 to 132
10	YD4	Y-SUS D4 <=> : ***	Adjustment of X-SUS trailing edge pulse D4	124 to 132
11	VSU	VLT-SUS <=> : ***	SUS voltage adjustment	000 to 255
12	VOF	VLT-OFS <=> : ***	OFFSET voltage adjustment	000 to 255

"***" in the table above represents the adjustment value.
The value of each subitem can be changed using the ◄ or ► key.

Notes:

- Adjustments No. 1 to No. 10 above are not normally required, unless so instructed by Service Information, etc.
- Readjustment of values for No. 11 [VSU] and No. 12 [VOF] are required when the service panel is replaced.

4. COMMON-PANEL2



Each time the ▲ or ▼ key is pressed, the subitems are changed, as follows:

No.	Corresponding 232C Command	Function/Display	Content	Adjustable Range
1	PRH	PANEL R HIGH <=> : *** (PTO)	Panel W/B R-HIGH adjustment	000 to 511
2	PGH	PANEL G HIGH <=> : *** (PTO)	Panel W/B G-HIGH adjustment	000 to 511
3	PBH	PANEL B HIGH <=> : *** (PTO)	Panel W/B B-HIGH adjustment	000 to 511
4	PRL	PANEL R LOW <=> : *** (PTO)	Panel W/B R-LOW adjustment	000 to 999
5	PGL	PANEL G LOW <=> : *** (PTO)	Panel W/B G-LOW adjustment	000 to 999
6	PBL	PANEL B LOW <=> : *** (PTO)	Panel W/B B-LOW adjustment	000 to 999
7	ABL	ABL LEVEL <=> : *** (ABx)	Power consumption adjustment	000 to 999

"***" in the table above represents the adjustment value.
The value of each subitem can be changed using the ◄ or ► key.
White balance adjustment.(From No.1 to No.6). (Refer to 116 pages of the " [W/B-adjustment procedurs]")

Notes: Adjustments No. 7: [ABL] above are not normally required, unless so instructed by Service Information, etc.

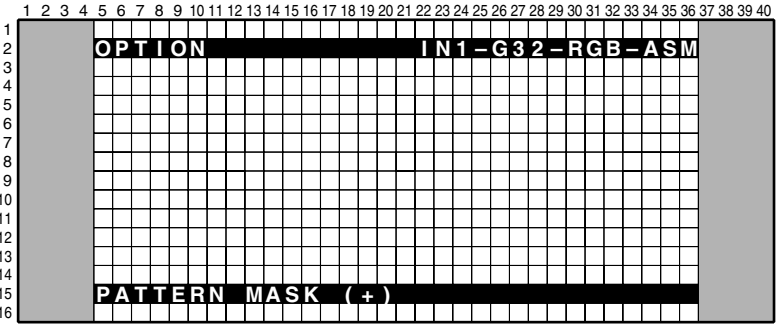
"(PTO)" and "(ABx)" in the table above represent the following:

Note: No adjustment required normally.

Indication	Table
PT1	For PC and NTSC

Indication	Table
AB1	For 60Hz, 72Hz and 75Hz video
AB3	For PC

OPTION mode



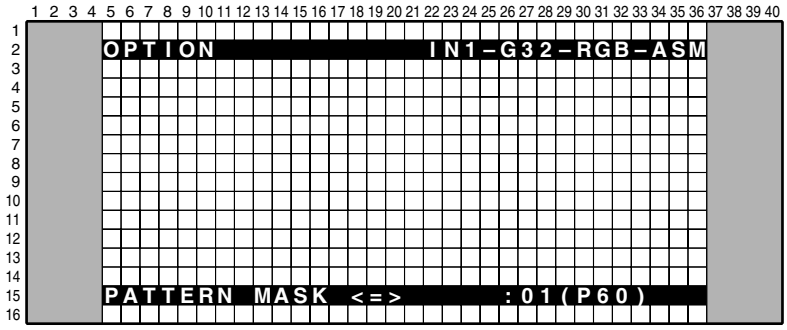
Select the main item "OPTION" using the MUTE key then select the subitems shown in the table below using the ▲ or ▼ key.

No.	Function/Display	Content	Remarks
1	PATTERN MASK (+)	For selecting Pattern mask of IC4	A lower layer exists.
2	FULL MASK (+)	For selecting raster mask of IC4	A lower layer exists.
3	DYNAMIC RANGE	ON ⇔ OFF	The last setting is not stored in memory (initial setting: ON).
4	EDID WRITE MODE	DISABLE ⇔ ENABLE	The last setting is not stored in memory (initial setting: DISABLE).

Note:

- For PATTERN MASK (+) and FULL MASK (+), press the SET key to switch to the lower layer.
- Adjustments No. 3 and 4 are not required for servicing.

1. PATTERN MASK
2. FULL MASK



To select the mask frequency, use the ◄ or ► key.
To select the mask pattern, use the ▲ or ▼ key.

Mask Frequency

No.	Corresponding RS-232C Command	Function/ Display	Content
1	F48	V48	Video 48-Hz sequence
2	F50	V50	Video 50-Hz sequence
3	F60	V60 (initial value)	Video 60-Hz sequence
4	F61	P60	PC 60-Hz sequence
5	F70	P70	PC 70-Hz sequence
6	F72	V72	Video 72-Hz sequence
7	F75	V75	Video 75-Hz sequence

Pattern Mask

No.	Corresponding RS-232C Command	Function/ Display	Content
1	M00	OFF	Mask mode: OFF
2	M01	01	White 0 to 100%
3	M02	02	Aging mask
4	M03	03	Aging mask (detection of still picture: OFF)
5	M10	10	H RAMP1
6	M11	11	H RAMP2
7	M12	12	H RAMP3
8	M13	13	H RAMP4
9	M14	14	V RAMP
10	M15	15	H/V RAMP
11	M20	20	Window0
12	M21	21	Window1
13	M22	22	Window2
14	M23	23	Window3
15	M24	24	Window4
16	M25	25	Window5
17	M26	26	Window6
18	M27	27	Window7
19	M28	28	Window8
20	M29	29	Window9
21	M2E	2E	Wiper for erasing afterimage
22	M30	30	COLOR BAR
23	M31	31	Slanted lines

Full Mask

No.	Corresponding RS-232C Command	Function/ Display	Content
1	M00	OFF	Mask mode: OFF
2	M51	51	Raster – White
3	M52	52	Raster – Red
4	M53	53	Raster – Green
5	M54	54	Raster – Blue
6	M55	55	Raster – Black
7	M56	56	Raster – Cyan
8	M57	57	Raster – Mazenta
9	M58	58	Raster – Yellow
10	M59	59	Raster – Cyan 274
11	M60	60	Raster – 50 fresh color
12	M61	61	Raster – 50 purple
13	M62	62	Raster – 50 sky blue
14	M63	63	Raster – Red 779
15	M64	64	Raster – Cyan 218
16	M65	65	Raster – Cyan 448
17	M66	66	Raster – 43 fresh color
18	M67	67	Raster – Red 640
19	M68	68	Raster – Mazenta 98
20	M69	69	Raster – 43 sky blue 1
21	M70	70	Raster – 43 sky blue 2
22	M71	71	Raster – 43 purple
23	M72	72	Raster – Blue 960
24	M73	73	Raster – Yellow 512
25	M74	74	Raster – Gray 512

3. DYNAMIC RANGE

The setting can be changed using the ◄ or ► key.

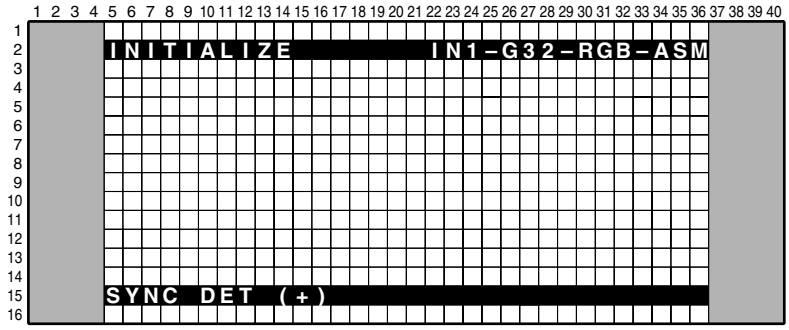
No.	Corresponding RS-232C Command	Function/ Display	Content
1	DYY	ON	DYNAMIC RANGE correction: ON (initial setting)
2	DYN	OFF	DYNAMIC RANGE correction: OFF

4. EDID WRITE MODE

The setting can be changed using the ◄ or ► key.

No.	Corresponding RS-232C Command	Function/ Display	Content
1	EWN	DISABLE	Prohibiting writing EDID data (initial setting)
2	EWY	ENABLE	Enabling writing EDID data

INITIALIZE mode



The subitems can be changed using the ▲ or ▼ key.

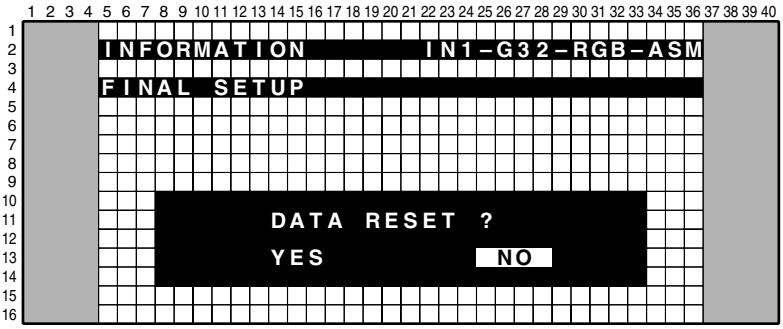
No.	Corresponding RS-232C Command	Function/Display	Content
1	–	SYNC DET (+) ∗1	Setting of the sync signal detection (correspond individually)
2	–	DRIVE MODE (+)	Setting of the luminescence pulse number of the lowest level (correspond individually)
3	–	SIDE MASK LEVEL (+)	Setting of the side mask color (correspond individually)
4	–	PANEL REVISE (+)	(Not used)
5	FST	FINAL SETUP	For initializing user's settings and some factory settings
6	–	C TEMP LOW (+)	For adjusting the user's C TEMP MODE item selected
7	–	C TEMP MID LOW (+)	
8	–	C TEMP MID (+)	
9	–	C TEMP MID HIGH (+)	
10	–	C TEMP HIGH (+)	
11	–	HDMI INTR POSITION (+)	(Not used)

Note: Any item followed by (+) has a lower layer to which you can switch using the SET key.

∗1: SYNC DET

Setting	Function	Details
STANDARD	Normal setting	The judgment of synchronization is automatically performed, followed by appropriate image processing.
NON-STD1	LD STILL detection OFF	If the LD STILL operation is performed during setting, the image on the screen is horizontally blurred.
NON-STD2	The judgment of synchronization is set to Nonstandard.	Not the 3-D Y/C processing but the 3-line Y/C processing is performed.

1. FINAL SETUP

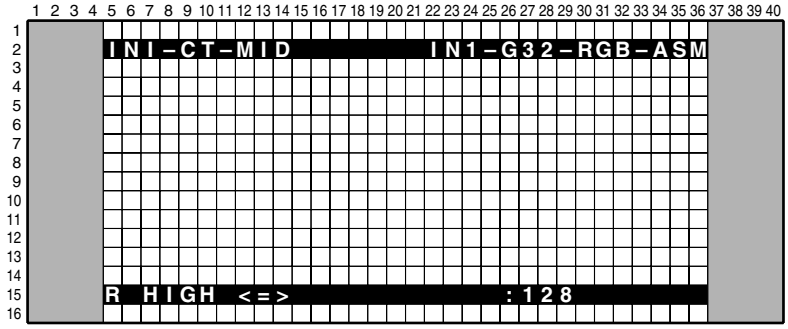


Select YES or NO using the ◄ or ► key then press the SET key for finalizing the selection:
YES : For executing FINAL SETUP
NO : For not executing FINAL SETUP

In FINAL SETUP, the following items can be initialized:

	Item (operation)	Factory setting	Remarks
Normal	Input function (main)	INPUT1	
	Input function (sub)	INPUT2	Only PDP-5004 and PDP-4304 are set.
	Screen size	VIDEO WIDE or FULL	The screen-size setting will be one of the factory-preset values, based on the results of signal-type detection (SIG-MODE).
		PC DOT BY DOT or FULL or 4:3	
	Volume	0	
	Multi screen	OFF	
	AV SELECTION	DYNAMIC (at VIDEO), STANDARD (at PC)	
Menu setting	PICTURE	Default setting for all adjustment items	For each input function
	SCREEN	Default setting for all adjustment items	For each input function
	SET UP	Default setting for all adjustment items	For each input function
	OPTION	Default setting for all adjustment items	For each input function
Factory	PATTERN MASK	OFF	
	FULL MASK	OFF	
	EDIT WRITE MODE	DISABLE	
	PEAK LIMITER	–	

2. C TEMP



The indication on the 2nd line in the above display varies according to the subitem selected in the upper layer, as follows:
INIT-CT- ****
****: LOW/MID/HIGH

Notes: Adjustments are not normally required, unless so instructed by Service Information, etc.

Each time the ▲ or ▼ key is pressed, items grouped under the subitems are changed, as follows:

No.	Function/Display	Content
1	R HIGH <=>	For adjusting R highlight in the selected color temperature mode
2	G HIGH <=>	For adjusting G highlight in the selected color temperature mode
3	B HIGH <=>	For adjusting B highlight in the selected color temperature mode
4	R LOW <=>	For adjusting R lowlight in the selected color temperature mode
5	G LOW <=>	For adjusting G lowlight in the selected color temperature mode
6	B LOW <=>	For adjusting B lowlight in the selected color temperature mode

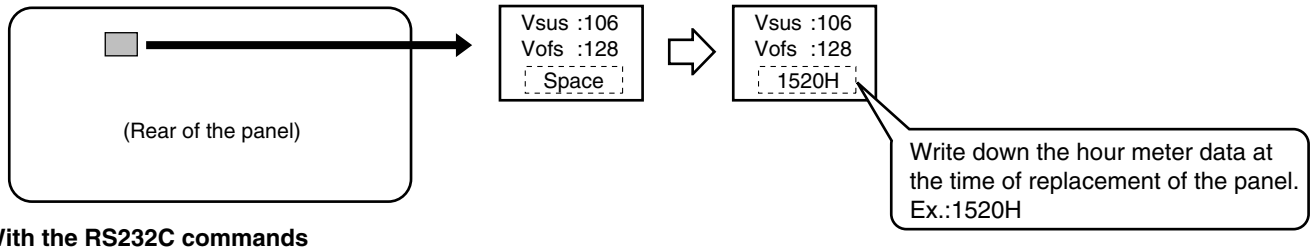
To change the value of each item, press the ◄ or ► key.

6.4 METHOD FOR REPLACING THE SERVICE PANEL ASSY

The following adjustments and operations are required when the Panel Assy is replaced for servicing.

■ Adjustments of the Vsus and Vofs voltages

Input the reference adjustment values that are described on the service panel for the Vsus and Vofs voltages, with the RS232C commands or on the Factory menu.

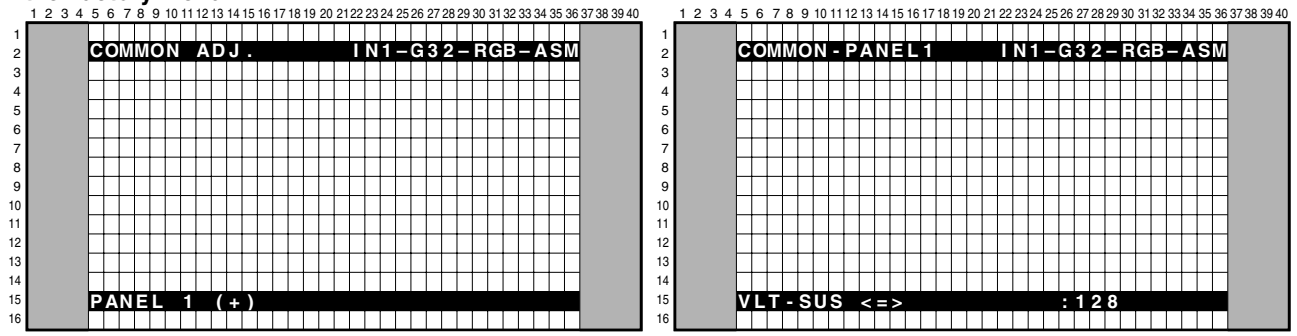


• With the RS232C commands

Input the adjustment values described on the label attached on the rear of the panel:

- Reference adjustment of the Vsus voltage : [VSU***] Ex. : [VSU106]
- Reference adjustment of the Vofs voltage : [VOF***] Ex. : [VOF128]

• On the Factory menu



Using the MUTE key, select the main item "COMMON ADJ." Select the subitem "PANEL 1" then "VLT-SUS" or "VLT-OFS," using the ▲ or ▼ key and SET key. Enter the value, using the ◄ or ► key.

■ Clearing various logs for the panel, such as that for the hour meter

It is necessary to clear various logs, such as that for the hour meter, to match the driving hours of the panel before and after replacement. Write down the hour-meter data at the time of replacement of the panel on the label attached to the rear of the panel.

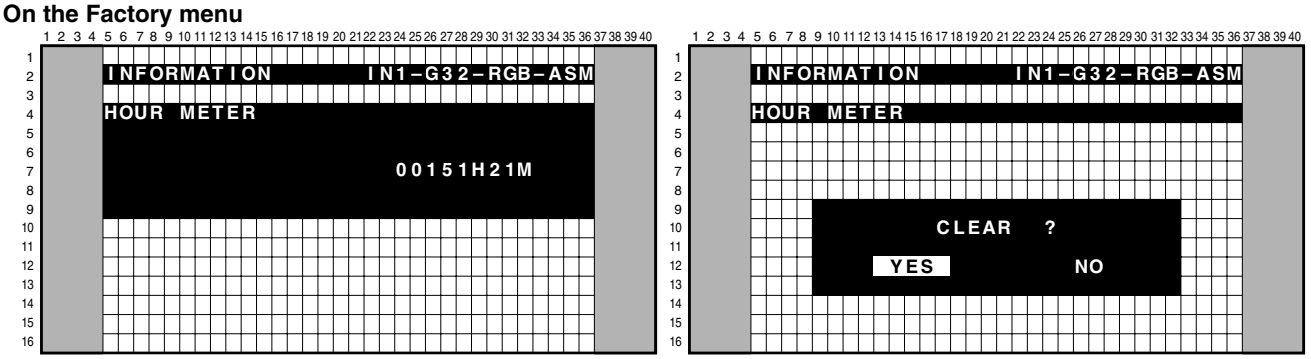
Notes: • For clearing, use the RS232C commands or the Factory menu.
• There are two hour meters. Be careful not to mistake the MR hour meter for the hour meter for the panel.

• With the RS232C commands

You can obtain the accumulated power-on time data of the product itself with the "GS2" RS232C command. (See "6.3 COMMANDS: Command description".)

1 For clearing the hour meter (for the panel) : CHM
2 For clearing the pulse meter : CPM
3 For clearing the shutdown (SD) log : CNG
4 For clearing the power-down (PD) log : CPD

• On the Factory menu



Using the MUTE key, select the main item "INFORMATION." Select the subitem "HOUR METER," using the ▲ or ▼ key and SET key. Clear the hour-meter data.
In the same way, select the subitem "PULSE METER," "PANEL SD," or "PANEL PD" under the main item "INFORMATION" then clear the data.

6.5 COMMAND DESCRIPTION

About GET Command

Operation description of GET command

Conditions under which GET commands are enabled

Most of the GET commands are enabled at any time, regardless of unit's being on/off or in Factory or Normal mode. However, some GET commands must be issued while the power is on to acquire correct data.

GDI: GET STATUS

Data						Size
		PDP-5004	PDP-4304	PDP-5014	PDP-4314	
1	Resolution	[5]: 1280*768	[4]: 1024*768	[5]: 1280*768	[4]: 1024*768	1 Byte
2	Age type	[4]: 2004 year				1 Byte
3	Destination	[A]: America				1 Byte
4	Grade	[S]: Step up		[B]: Basic		1 Byte
5	Configuration	[M]: Monitor				1 Byte
6	Dummy	[2]				1 Byte
7	Spare	[* *]				2 Byte

GS1: Returning information on the model and the version of the software

Order	Data	Size
1	Data on the display	3 byte
2	Version of the module microcomputer	4 byte
3	Version of the IC4-MANTA	4 byte
4	Sequence version (43VIDEO)	4 byte
5	Sequence version (43PC)	4 byte
6	Sequence version (50VIDEO)	4 byte
7	Sequence version (50PC)	4 byte
8	Version of the IF microcomputer	4 byte
9	Version of the main microcomputer	4 byte
10	Version of the IC3-MANTA	4 byte
11	Version of the OSD	4 byte
12	Dummy	12 byte

Breakdown of the data on the display

Data	Model
MX5	PDP-5004 / PDP-5014
MX4	PDP-4304 / PDP-4314

GPW: RGB-level-related adjustment values of the panel system

Order	Data	Size
1	Panel W/B table currently used	3 byte
2	Main contrast	4 byte
3	Red high light of the W/B adjustment value	4 byte
4	Green high light of the W/B adjustment value	4 byte
5	Blue high light of the W/B adjustment value	4 byte
6	Main brightness	4 byte
7	Red low light of the W/B adjustment value	4 byte
8	Green low light of the W/B adjustment value	4 byte
9	Blue low light of the W/B adjustment value	4 byte

• Details on "Panel W/B table"

Data	Table
PT1	WB table for NTSC

GPD: Power-down information

Order	Data	Size	Order	Data	Size
1	Latest "1st PD" data	1 byte	17	Fifth latest “1st PD” data	1 byte
2	Latest "2nd PD" data	1 byte	18	Fifth latest “2nd PD” data	1 byte
3	Data of hour meter for the latest PD	7 byte	19	Data of hour meter for the fifth latest PD	7 byte
4	Data on temperature for the latest PD (TEMP1)	3 byte	20	Data on temperature for the fifth latest PD (TEMP1)	3 byte
5	Second latest “1st PD” data	1 byte	21	Sixth latest “1st PD” data	1 byte
6	Second latest “2nd PD” data	1 byte	22	Sixth latest “2nd PD” data	1 byte
7	Data of hour meter for the second latest PD	7 byte	23	Data of hour meter for the sixth latest PD	7 byte
8	Data on temperature for the second latest PD (TEMP1)	3 byte	24	Data on temperature for the sixth latest PD (TEMP1)	3 byte
9	Third latest “1st PD” data	1 byte	25	Seventh latest “1st PD” data	1 byte
10	Third latest “2nd PD” data	1 byte	26	Seventh latest “2nd PD” data	1 byte
11	Data of hour meter for the third latest PD	7 byte	27	Data of hour meter for the seventh latest PD	7 byte
12	Data on temperature for the third latest PD (TEMP1)	3 byte	28	Data on temperature for the seventh latest PD (TEMP1)	3 byte
13	Fourth latest “1st PD” data	1 byte	29	Eighth latest “1st PD” data	1 byte
14	Fourth latest “2nd PD” data	1 byte	30	Eighth latest “2nd PD” data	1 byte
15	Data of hour meter for the fourth latest PD	7 byte	31	Data of hour meter for the eighth latest PD	7 byte
16	Data on temperature for the fourth latest PD (TEMP1)	3 byte	32	Data on temperature for the eighth latest PD (TEMP1)	3 byte

Hour meter data; 1 to 5 byte: time, 6 to 7 byte: minute

• Details on "1st/2nd PD" data

Data	Power-down Point
0	No power-down
1	Not used (for MR-POWER)
2	P-POWER
3	SCAN
4	SCN-5V
5	Y-DRIVE
6	Y-DCDC
7	Y-SUS
8	ADRS
9	X-DRIVE
A	X-DCDC
B	X-SUS
C	DIG-DCDC
D, E	Spare
F	Power-down point not identified

GNG: Shutdown information

Order	Data	Size	Order	Data	Size
1	Latest SD data	1 byte	17	Fifth latest SD data	1 byte
2	Data of subcategory for the latest SD	1 byte	18	Data of subcategory for the fifth latest SD	1 byte
3	Data of hour meter for the latest SD	7 byte	19	Data of hour meter for the fifth latest SD	7 byte
4	Data on temperature for the latest SD	3 byte	20	Data on temperature for the fifth latest SD	3 byte
5	Second latest SD data	1 byte	21	Sixth latest SD data	1 byte
6	Data of subcategory for the second latest SD	1 byte	22	Data of subcategory for the sixth latest SD	1 byte
7	Data of hour meter for the second latest SD	7 byte	23	Data of hour meter for the sixth latest SD	7 byte
8	Data on temperature for the second latest SD	3 byte	24	Data on temperature for the sixth latest SD	3 byte
9	Third latest SD data	1 byte	25	Seventh latest SD data	1 byte
10	Data of subcategory for the third latest SD	1 byte	26	Data of subcategory for the seventh latest SD	1 byte
11	Data of hour meter for the third latest SD	7 byte	27	Data of hour meter for the seventh latest SD	7 byte
12	Data on temperature for the third latest SD	3 byte	28	Data on temperature for the seventh latest SD	3 byte
13	Fourth latest SD data	1 byte	29	Eighth latest SD data	1 byte
14	Data of subcategory for the fourth latest SD	1 byte	30	Data of subcategory for the eighth latest SD	1 byte
15	Data of hour meter for the fourth latest SD	7 byte	31	Data of hour meter for the eighth latest SD	7 byte
16	Data on temperature for the fourth latest SD	3 byte	32	Data on temperature for the eighth latest SD	3 byte

Hour meter data; 1 to 5 byte: time, 6 to 7 byte: minute

• Details on the SD data

Data	Cause of Shutdown
0	No abnormality
1	IC4
2	Module microcomputer IIC
3	Abnormality in DIG-RST2 (power decrease of ASIC)
4	Panel having abnormally high temperature
5	Audio failure (short-circuiting of the speakers)
6	Communication failure of the module microcomputer
7	Three-wire serial communication failure of the main microcomputer
8	IIC communication failure of the main microcomputer
9	Communication failure of the main microcomputer
A	Fan stopped
B	Temperature abnormality
D	Abnormality in MAIN-RST2
F	Others

• Data on the subcategories for the module microcomputer IIC

Data	Cause of Shutdown
0	No subcategory
1	EEPROM (4k)
2	EEPROM (2k)

• Data on the subcategories for failure in 3-wire serial communication of the main microcomputer

Data	Cause of Shutdown
0	No subcategory
1	Communication failure of the IF microcomputer
2	IC2 communication failure
3	IC3 communication failure

• Data on the subcategories for failure in IIC communication of the main microcomputer

Data	Cause of Shutdown
0	No subcategory
1	EEPROM (128k) (IC7205)
2	Not used
3	IC1 V (IC6107)
4	IC1 Y (IC6255)
5	AD-PLL main (IC6001)
6	AD-PLL sub (IC6002)
7	IC6/1 (IC5701)
8	Not used
9	HDMI 2 (IC6810)
A	Not used
B	Not used
C	Not used
D	Not used
E	Not used
F	EEPROM (SLOT)
G	Not used
H	Not used
N	IC6/2 (IC5801)

• Subcategory data on abnormal temperature

Data	Cause of Shutdown
2	Temperature inside the unit (INSIDE)
3	Ambient temperature (AIR)

• Subcategory data on other failures

Data	Cause of Shutdown
2	Power monitor 1 (VCC-D1)
3	Power monitor 1 (VCC-D2)
5	Power monitor 1 (VCC-D4) (IC6809)

GS2: Status information

Order	Data	Size	Remarks
1	Notifying of switching to Standby mode	1 byte	1: Successfully switched to Standby mode
2	Whether the unit has already been adjusted or not	1 byte	0: Adjusted, 1: Not adjusted
3	With/without backup of adjustment data	1 byte	0: With backup, 1: Without backup
4	Power-down information	2 byte	1st byte: 1st PD, 2nd byte: 2nd PD
5	Temperature information (TEMP1)	3 byte	000 to 255
6	Abnormality in RST2 (power decrease of the DC-DC converter)	1 byte	0: Normal, 1: Shutdown process caused by an abnormality completed, 2: In the process of displaying a warning against shutdown caused by an abnormality
7	IC4 communication failure	1 byte	
8	EEPROM communication failure	1 byte	
9	Failure in audio	1 byte	
10	Communication failure of the volume IC	1 byte	
11	Backup-ROM communication failure	1 byte	
12	Failure in temperature information (TEMP1)	1 byte	
13	Activation of panel protection	1 byte	0: Panel protection not activated, 1: Panel protection being activated
14	(Reservation)	9 byte	* * * * * * * * *
15	Hour meter	7 byte	1st-5th bytes: Hour, 6-7th bytes: Minute

• Power-down information

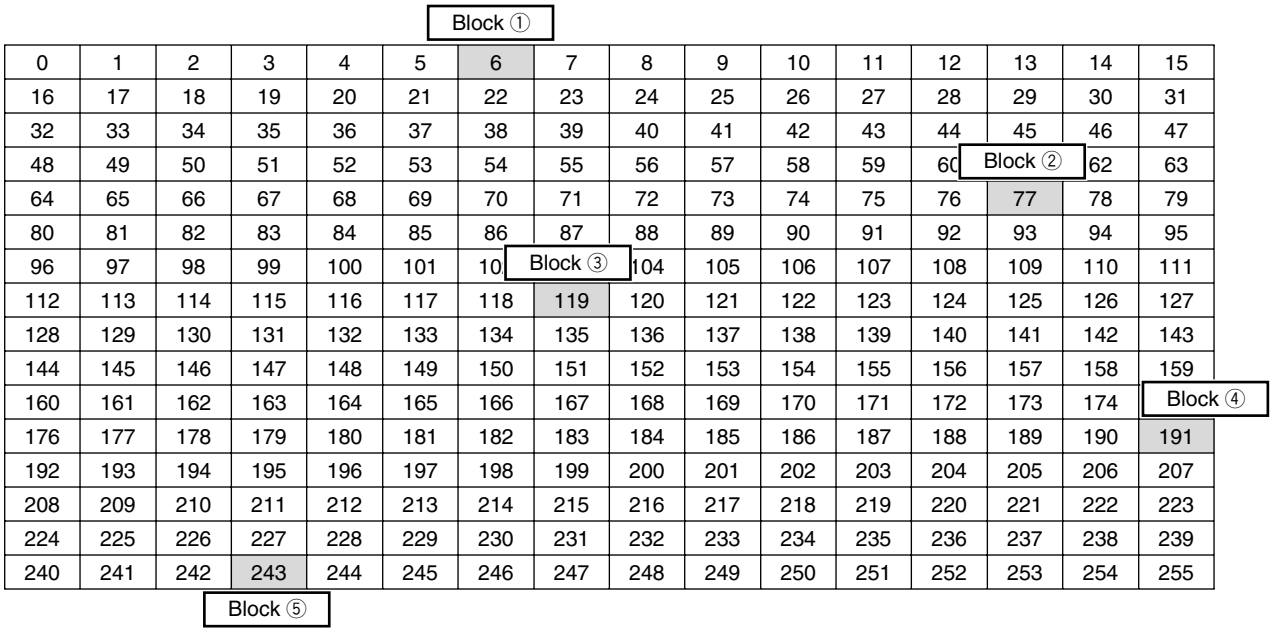
Data	Power-down point
0	No power-down
1	Not used
2	P-POWER
3	SCAN
4	SCN-5V
5	Y-DRIVE
6	Y-DCDC
7	Y-SUS
8	ADRS
9	X-DRIVE
A	X-DCDC
B	X-SUS
C	DIG-DCDC
D	Reservation
E	Reservation
F	Power-down point not identified

GPM: Value of the pulse meter

Order	Data	Size
1	Pulse meter (Block area 1)	10 byte
2	Pulse meter (Block area 2)	10 byte
3	Pulse meter (Block area 3)	10 byte
4	Pulse meter (Block area 4)	10 byte
5	Pulse meter (Block area 5)	10 byte

Note:
The number of electric discharges at each block is displayed. The first digit represents the number of tens of thousands.

[Location of the block areas from which values from the pulse meter are obtained]



0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111
112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127
128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143
144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159
160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191
192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207
208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223
224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239
240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255

GPC: Number of times the power was turned on

Order	Data	Size
1	Power-on counter	8 byte

GAJ: Drive-related adjustment values

Order	Data	Size
1	ABL table currently used	3 byte
2	Upper limit of the power	3 byte
3	Vsus adjustment value	3 byte
4	Vofs adjustment value	3 byte
5	X-SUS-U1 adjustment value (XU1)	3 byte
6	X-SUS-U2 adjustment value (XU2)	3 byte
7	X-SUS-D2 adjustment value (XD2)	3 byte
8	X-SUS-D1 adjustment value (XD1)	3 byte
9	Y-SUS-U1 adjustment value (YU1)	3 byte
10	Y-SUS-U2 adjustment value (YU2)	3 byte
11	Y-SUS-D1-2 adjustment value (YD2)	3 byte
12	Y-SUS-D1-1 adjustment value (YD1)	3 byte
13	Y-SUS-D2-2 adjustment value (YD4)	3 byte
14	Y-SUS-D2-1 adjustment value (YD3)	3 byte

• Details on "ABL table"

Data	Table
AB1	ABL table for 60Hz,72Hz and 75Hz video
AB3	ABL table for PC

LIST OF RS-232C COMMAND

Command		Operation	Validity of Direct Numeric Input	Lower limit	Upper limit
[A]			❍	000	255
ABL		Adjusting power consumption			
ADC		AD MAIN CONTRAST adjustment			
AMT	S00	Cancelling the audio mute			
AMT	S01	Executing the audio mute			
AST		Executing the auto setup			
[B]					
BCP		Transmitting the backup data to the DIGITAL VIDEO Assy			
BSL		Adjusting the side mask B	❍	000	255
BYG		Adjusting the BY GAIN	❍	000	255
[C]					
CHM		Clearing the hour meter			
CNG		Clearing the MR NG information			
CPC		Clearing the power-on counter			
CPD		Clearing the power-down information			
CPM		Clearing the pulse meter			
CTM		Clearing the remodeling log			
[D]					
DRF		Turning off the power for the drive system			
DRN		Turning on the power for the drive system			
DW0		Decresing the adjustment value by 10			
DWn		Decreasing the adjustment value by n			
DWF		Minimizing the adjustment value			
DYR	S00	D-range correction NO			
DYR	S01	D-range correction YES			
[E]					
EDW	S00	Prohibiting the writing of EDID data			
EDW	S01	Permitting the writing of EDID data			
[F]					
F48		Video 48-Hz sequence			
F50		Video 50-Hz sequence			
F60		Video 60-Hz sequence			
F61		PC 60-Hz sequence			
F70		PC 70-Hz sequence			
F72		Video 72-Hz sequence			
F75		Video 75-Hz sequence			
FAJ		Determining the main unit adjustment			
FAN		Turning the Service Factory mode off			
FAY		Turning the Service Factory mode on			
FCA		Turning the fan roll control to auto			
FCM		Maximizing the fan roll control			
FST		Executing the FINAL SETUP			
[G]					
GAJ		Obtaining the adjustment values for the panel			
GAS		Obtaining the IC4 status			
GDI		Command for obtaining the command			
GMM		Switching the gamma	❍	000	007
GNG		Obtaining the shut down (NG) information			
GNP		Obtaining the serial number of the panel			
GPC		Obtaining the value of P ON COUNTER			

Command		Operation	Validity of Direct Numeric Input	Lower limit	Upper limit
GPD		Obtaining the power-down information			
GPM		Obtaining the PULSE METER data			
GPP		Obtaining the PD polling log for module			
GPW		Obtaining the PANEL W/B data			
GS1		Obtaining the version data for each device			
GS2		Obtaining the each operating information			
GSL		Adjusting the side mask GREEN	○	000	255
GYG		Adjusting the GY GAIN	○	000	255
[I]					
INP		Indicating the input function of current main screen			
INP	S01	Switching the main screen to Input 1			
INP	S02	Switching the main screen to Input 2			
INP	S03	Switching the main screen to Input 3			
INP	S04	Switching the main screen to Input 4			
INP	S05	Switching the main screen to Input 5			
[M]					
MSK	S00	Mask mode: OFF			
MSK	S01	White: 0 to 100%			
MSK	S02	Aging mask (detection of still picture: OFF)			
MSK	S03	Aging mask			
MSK	S04	Aging mask (detection of still picture: OFF)			
MSK	S10	RAMP slant 1			
MSK	S11	RAMP slant 4			
MSK	S12	RAMP slant 1 shifting			
MSK	S13	RAMP slant 4 shifting			
MSK	S14	V RAMP			
MSK	S15	H/V RAMP			
MSK	S20	Window (for W/B adjustment High: 870, Low: 102)			
MSK	S21	Window (for W/B adjustment High: 1023, Low: 102)			
MSK	S22	Window (for the peak luminance measurement of WB stage High: 1023)			
MSK	S23	Window (for the peak luminance measurement High: 1023 4%)			
MSK	S24	Window (for the peak luminance measurement High: 1023 1.25%)			
MSK	S25	Window-1/7 vertical window (for stress measurement)			
MSK	S26	Window (magenta, green, stripe for checker)			
MSK	S27	Window (green, magenta, stripe for checker)			
MSK	S28	Window (black & white [1 x 8], checkered pattern [for EMG check])			
MSK	S29	Window (for W/B adjustment, magenta=512, yellow=512)			
MSK	S40	Wiper to prevent phosphor burn			
MSK	S30	Color Bar			
MSK	S31	Slanted lines (breaking of wire check)			
MSK	S51	Raster-white			
MSK	S52	Raster-red			
MSK	S53	Raster-green			
MSK	S54	Raster-blue			
MSK	S55	Raster-black			
MSK	S56	Raster-cyan			
MSK	S57	Raster-magenta			
MSK	S58	Raster-yellow			
MSK	S59	Raster-cyan 274			

Command		Operation	Validity of Direct Numeric Input	Lower limit	Upper limit
MSK	S60	Raster-50 flesh color			
MSK	S61	Raster-50 light purple			
MSK	S62	Raster-50 sky blue			
MSK	S63	Raster-red 779			
MSK	S64	Raster-cyan 218			
MSK	S65	Raster-cyan 448			
MSK	S66	Raster-43 flesh color			
MSK	S67	Raster-red 640			
MSK	S68	Raster-magenta 98			
MSK	S69	Raster-43 sky blue 1			
MSK	S70	Raster-43 sky blue 2			
MSK	S71	Raster-43 light purple			
MSK	S72	Raster-blue 960			
MSK	S73	Raster-gray 511 (spare)			
MSK	S74	Raster-gray 511 (spare)			
MBG		AD MAIN B GAIN	○	000	255
MBO		AD MAIN B OFFSET	○	000	255
MGG		AD MAIN G GAIN	○	000	255
MGO		AD MAIN G OFFSET	○	000	255
MRG		AD MAIN R GAIN	○	000	255
MRO		AD MAIN R OFFSET	○	000	255
[N]					
NGN		Prohibiting the shut down operation			
[O]					
OSD	S00	Turning the OSD indication off			
OSD	S01	Turning the OSD indication on			
[P]					
PLT	S00	PEAK LIMITER OFF			
PLT	S01	PEAK LIMITER ON			
PBH		Panel W/B B-HIGH adjustment	○	000	511
PBL		Panel W/B B-LOW adjustment	○	000	999
PDN		POWER DOWN NO			
PDY		POWER DOWN YES			
PGH		Panel W/B G-HIGH adjustment	○	000	511
PGL		Panel W/B G-LOW adjustment	○	000	999
PL0		Adjusting the brightness setting to 0			
PL1		Adjusting the brightness setting to 1			
PL2		Adjusting the brightness setting to 2			
PL3		Adjusting the brightness setting to 3			
PL4		Adjusting the brightness setting to 4			
PL5		Adjusting the brightness setting to 5			
PLA		Center luminance correction ON (APL interlocking OFF)			
PLN		Center luminance correction OFF			
POF		Turning the power OFF			
PON		Turning the power ON			
PRH		Panel W/B R-HIGH adjustment	○	000	511
PRL		Panel W/B R-LOW adjustment	○	000	999

Command		Operation	Validity of Direct Numeric Input	Lower limit	Upper limit
[R]					
RSL		Adjusting the side mask RED	○	000	255
RYG		RY GAIN	○	000	255
[S]					
SBG		AD SUB B GAIN	○	000	255
SBO		AD SUB B OFFSET	○	064	191
SFI		Initializing the full mask table			
SFT		Indicating the current signal format			
SFT	S01	Setting the signal format to PC FORMAT1 (VGA or XGA or SXGA or 720-PC)			
SFT	S02	Setting the signal format to PC FORMAT2 (WVGA or WXGA or SXGA+)			
SFT	S03	Setting the signal format to VIDEO 525p or VIDEO 750p			
SFT	S04	Setting the signal format to PC AUTO			
SGG		AD SUB G GAIN	○	000	255
SGO		AD SUB G OFFSET	○	064	191
SIP		Indicating the current function type			
SIP	S04	Input switching auxiliary (PC)			
SIP	S05	Input switching auxiliary (HDMI)			
SN0		Setting 1, 2, or 3 for the serial number of the panel			
SN1		Setting 4, 5, or 6 for the serial number of the panel			
SN2		Setting 7, 8, or 9 for the serial number of the panel			
SN3		Setting 10, 11, or 12 for the serial number of the panel			
SN4		Setting 13, 14, or 15 for the serial number of the panel			
SPI		Initializing the video EEPROM data			
SRG		AD SUB R GAIN	○	000	255
SRO		AD SUB R OFFSET	○	064	191
SWM		Full-screen display of main output			
SWS		Full-screen display of sub output			
SZM		Indicating the current screen size setting			
SZM	S00	Setting the screen size to Dot by Dot or PARTIAL			
SZM	S01	Setting the screen size to 4:3			
SZM	S02	Setting the screen size to FULL or FULL1080i			
SZM	S03	Setting the screen size to ZOOM			
SZM	S04	Setting the screen size to CINEMA			
SZM	S05	Setting the screen size to WIDE			
[T]					
TSN		Trap SW is invalid			
TSY		Trap SW is valid			
[U]					
UAJ		Return the DIGITAL VIDEO Assy to service parts			
UP0		10 adds adjustment value			
UPn		n adds adjustment value			
UPF		Maximizing the adjustment value			

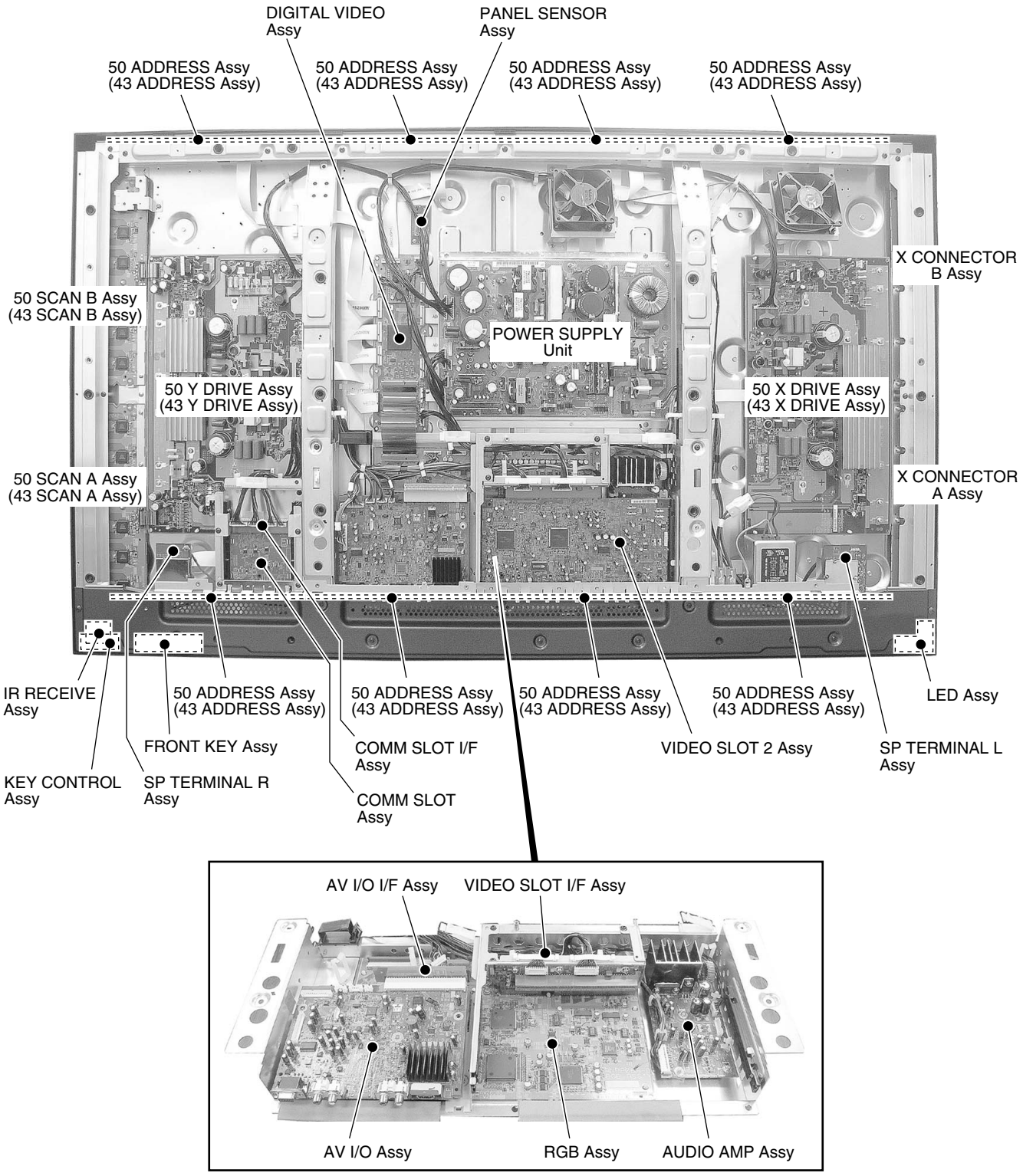
Command		Operation	Validity of Direct Numeric Input	Lower limit	Upper limit
[V]					
VMT	S00	Cancelling the panel mute			
VMT	S01	Executing the panel mute			
VOF		Offset voltage adjustment	❍	000	255
VOL	***	Adjusting the audio volume	❍	000	060
VSG		CVY GAIN	❍	064	191
VSO		CVY OFFSET	❍	000	255
VSU		SUS voltage adjustment	❍	000	255
[W]					
WAN		WBL-APL interlocking prohibition			
WAY		WBL-APL interlocking permission			
[X]					
XD1		D1 trailing-edge pulse of X-SUS			
XD2		D2 trailing-edge pulse of X-SUS			
XU1		U1 leading-edge pulse of X-SUS			
XU2		U2 leading-edge pulse of X-SUS			
[Y]					
YD1		D1 trailing-edge pulse of Y-SUS			
YD2		D2 trailing-edge pulse of Y-SUS			
YD3		D3 trailing-edge pulse of Y-SUS			
YD4		D4 trailing-edge pulse of Y-SUS			
YU1		U1 leading-edge pulse of Y-SUS			
YU2		U2 leading-edge pulse of Y-SUS			

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 CONFIGURATION OF THE PC BOARD

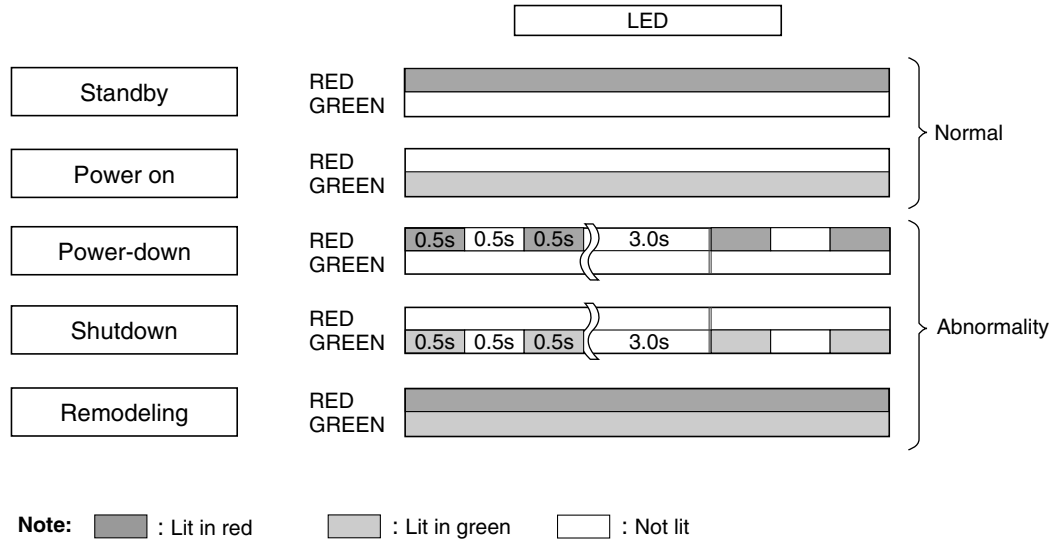
Note : This illustration is PDP-5004.



● Rear view

7.1.2 DIAGNOSIS FOR SHUTDOWN AND POWER-DOWN BY LED

• Operation statuses indicated by LEDs



Note: : Lit in red : Lit in green : Not lit

• Identification of locations having abnormality by the number of times the LEDs flash

■ On Shutdown and power-down

Shutdown

• Operation: When the microcomputer detects any abnormality, it forcibly shuts the unit off.
• LED indication: The LED flashes in green.

Note: The LED flashes regardless of the FRONT INDICATOR setting on the Integrator menu.

Power-down

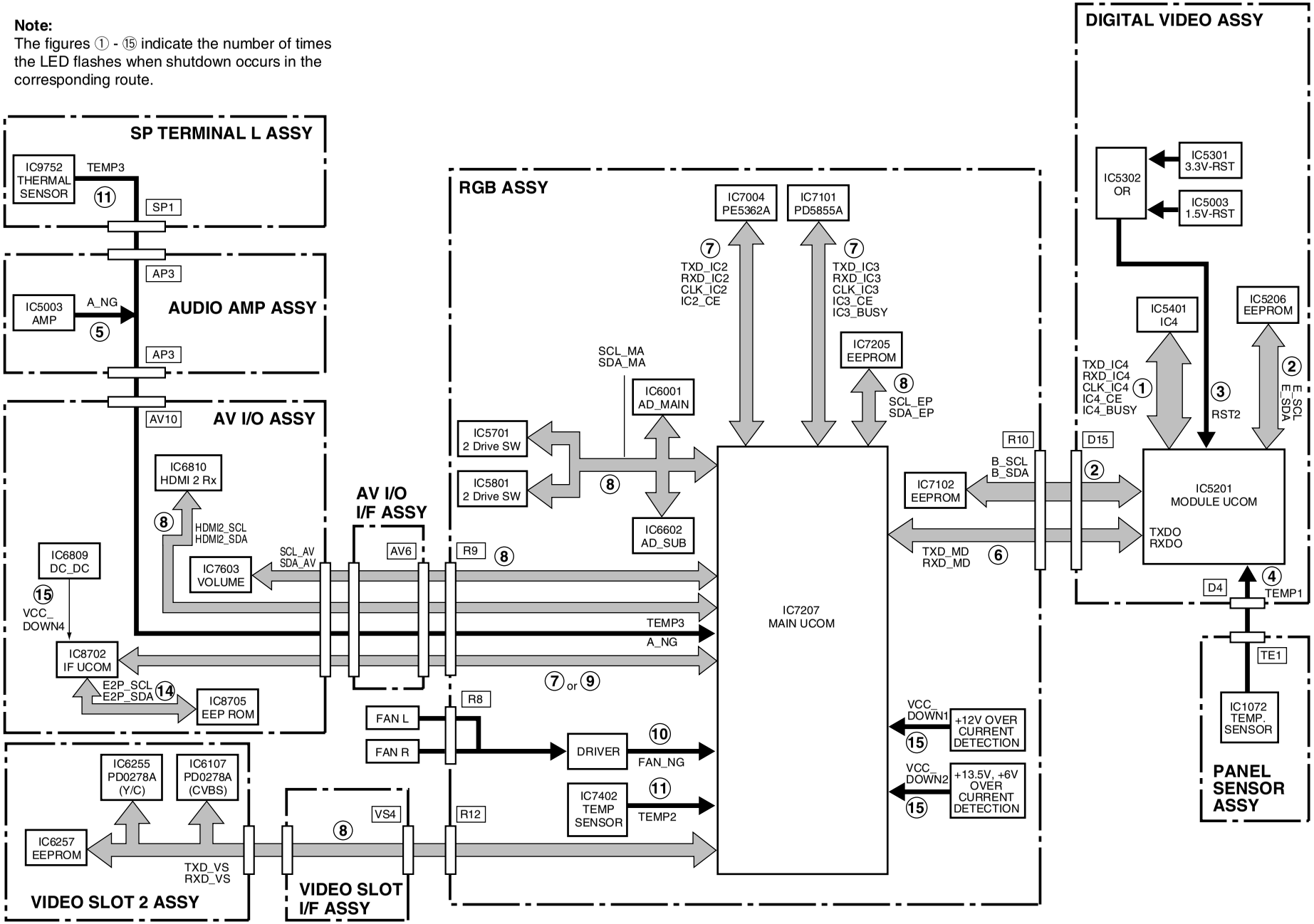
• Operation: When the unit is in emergency status, a protection circuit is activated, and the power is shut off.
• LED indication: The LED flashes in red.

Category	LED		Content		Unit's Operation	Warning Message
	STB	ON				
SD		Once	Communication failure of the panel-drive IC		Shutdown 3 seconds after warning	Shutdown by circuit failure (01)
		Twice	Communication failure of the module IIC		Shutdown 3 seconds after warning	Shutdown by circuit failure (02)
		3 times	Power decrease of the digital DC-DC converter		Immediate shutdown	
		4 times	Panel having high temperature		Shutdown 30 seconds after warning	Shutdown by warning temperature rise (04)
		5 times	Audio failure		Shutdown 3 seconds after warning	Shutdown by warning speaker failure (05)
		6 times	Communication failure of the module microcomputer		Shutdown 3 seconds after warning	Shutdown by circuit failure (06)
		7 times	Main 3-wire serial communication in failure		Shutdown 3 seconds after warning	Shutdown by circuit failure (07)
		8 times	Communication failure of the main IIC		Shutdown 3 seconds after warning	Shutdown by circuit failure (08)
		9 times	Communication failure of the main microcomputer		Immediate shutdown	
		10 times	Fan in failure		Shutdown 3 seconds after warning	Shutdown by warning fan abnormality (10)
		11 times	Unit having higher temperature		Shutdown 30 seconds after warning	Shutdown by warning temperature rise (11)
		13 times	Main microcomputer ASIC power supply NG		Immediate shutdown	
		14 times	Communication failure of IF-EEPROM		Shutdown 3 seconds after warning	Shutdown by circuit failure (14)
		15 times	Other failure	VCC-D1	Shutdown 3 seconds after warning	Shutdown by circuit failure (15)
				VCC-D2		
				VCC-D4		
PD	Once					
	Twice		Power		Immediate power-down	
	3 times		SCAN		Immediate power-down	
	4 times		SCAN-5V		Immediate power-down	
	5 times		Y-DRIVE		Immediate power-down	
	6 times		Y-DCDC		Immediate power-down	
	7 times		Y-SUS		Immediate power-down	
	8 times		ADDRESS		Immediate power-down	
	9 times		X-DRIVE		Immediate power-down	
	10 times		X-DCDC		Immediate power-down	
	11 times		X-SUS		Immediate power-down	
	12 times		DIGITAL-DCDC		Immediate power-down	
	15 times		UNKNOWN (Not identified) *		Immediate power-down	

* If the unit cannot identify which protection circuit was activated, even if a power-down had been detected, the red LED may flash 15 times.

• Block diagram of the shutdown signal system

Note:
The figures ① - ⑮ indicate the number of times the LED flashes when shutdown occurs in the corresponding route.



• Diagnosis of shutdown

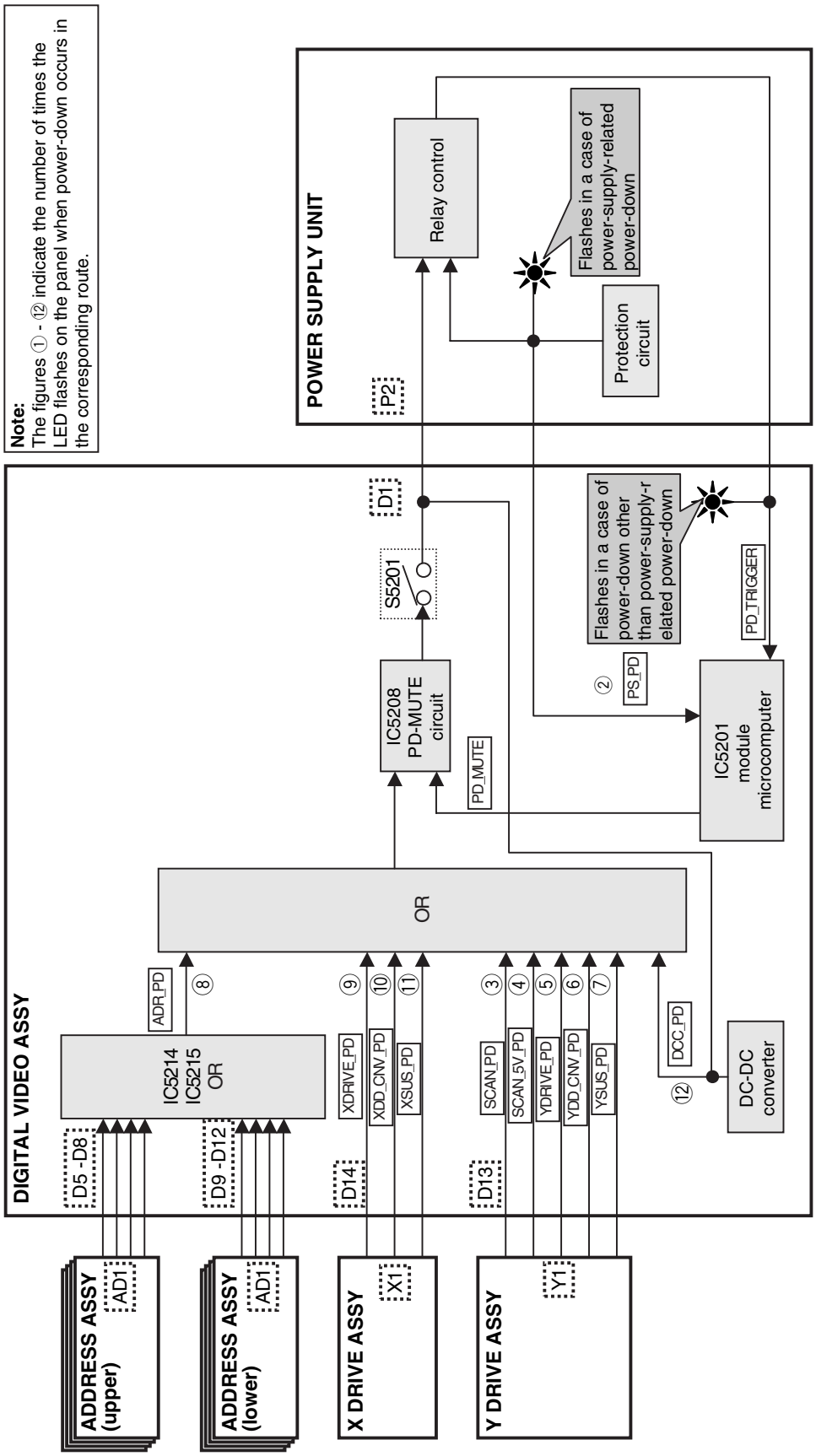
	SD Circuit in Operation	Defective Assy	Reason for Shutdown	Point to be Checked	Possible Defective Part	Remarks
1	Communication failure of the panel-drive IC	DIGITAL VIDEO	Communication failure of IC4 or defective peripheral circuits	IC4 Block, Panel Flash Block	IC5401, IC5305	
			Writing failure of IC4			After turning the unit on again, check if the data on the version can be read with the GS1 command.
2	Communication failure of the module IC (Check the shutdown subcategory on the Factory menu.)	DIGITAL VIDEO	Communication failure of the EEPROM (4k) or defective peripheral circuits	Module Ucom Block	IC5206	
		RGB	Communication failure of the EEPROM (2k) or defective peripheral circuits	IC3 Block	IC7102	
			Defective 114-pin FPC	CN400(D15) - CN7101(R10)	ADY1081	Check if the cable is disconnected or not securely connected.
3	Power decrease of DIGITAL-DC-DC	DIGITAL VIDEO	Defective DC-DC converter	Digital DD Control Block	U5601	Check if 3.3V, 2.5V, and 1.5V are activated (not short-circuited).
		DIGITAL VIDEO	Defective RST IC	Panel Flash Block	IC5301,IC5302,IC5303	
		POWER SUPPLY	No startup of 12 V			
4	Panel having higher temperature	DIGITAL VIDEO	Disconnection of cable	CN5202 - CN1071		
			Panel having higher temperature	Surrounding temperature		Temperature detected by a sensor must not exceed 90°C (TEMP1).
5	Audio failure		Speaker short-circuited	Speaker terminals		Check if the speaker cables are in contact with the chassis, etc.
		AUDIO AMP	Defective AMP IC	Audio Amp	IC5003	
		AUDIO AMP	Disconnection of cable	CN7601(AV1) - CN5001(AP2)		Check if the cable is disconnected or not securely connected.
6	Communication failure of the module microcomputer	DIGITAL VIDEO	Communication failure in the module microcomputer or defective peripheral circuits	Module Ucom Block	IC5201	Check short/open of the communication line (TXDO/RXDO).
			Failure in writing in the module microcomputer	Module Ucom Block	IC5201	
			Defective 114-pin FPC	CN4004(D15) - CN7101(R10)	ADY1081	Check if the cable is disconnected or not securely connected.
7	Serial communication failure of the 3-wire of the main microcomputer	AV I/O	Communication failure in the IF microcomputer or defective peripheral circuits	IF Ucom Block	IC8702	Check short / open of the communication line (TXD_IF/RXD_IF/CLK_IF/BUSY_IF/CE_IF)
		RGB	Communication failure in the CELIA or defective peripheral circuits	IC2 Block	IC7004	Check short / open of the communication line (TXD_IC2/RXD_IC2/CLK_IC2/CE_IC2)
		RGB	Communication failure in the MIKE or defective peripheral circuits	IC3 Block	IC7101	Check short / open of the communication line (TXD_IC3/RXD_IC3/CLK_IC3/BUSY_IC2/CE_IC3)
		RGB	Failure in writing in the MIKE	IC3 Block	IC7101	
8	IIC communication failure of the main microcomputer (Confirm the SD subcategory in the factory menu)	VIDEO SLOT2	Failure in MICHAEL Y/C or defective peripheral circuits	IC1 (Y/C) Block	IC6255	
		VIDEO SLOT2	Failure in MICHAEL CVBS or defective peripheral circuits	IC1 (CVBS) Block	IC6107	
		RGB	Failure in AD MAIN or defective peripheral circuits	Main AD Block	IC6001	
		RGB	Failure in AD SUB or defective peripheral circuits	Sub LPF & AD Block	IC6602	
		RGB	Failure in ROZ or defective peripheral circuits	Bus SW1 Block	IC5701	
		RGB	Failure in ROZ or defective peripheral circuits	Bus SW2 Block	IC5801	
		AV I/O	Failure in VOL IC or defective peripheral circuits	AV I/O Assy	IC7603	
		AV I/O	Failure in HDMI Rx IC or defective peripheral ciecuits	IC6810 Block	IC6810	
		RGB	Failure in EEPROM or defective peripheral circuits	Main Ucom Block	IC7205	
		VIDEO SLOT2	Failure in EEPROM or defective peripheral circuits	IC1 (Y/C) Block	IC6257	
			Defective communication line between any of the above devices and the main microcomputer		IC7207	Check short / open of SCL_AV/SDA_AV, SCL_MA/SDA_MA and SCL_EP/SDA_EP

	SD Circuit in Operation		Defective Assy	Reason for Shutdown	Point to be Checked	Possible Defective Part	Remarks
9	Communication failure in main microcomputer		RGB	Communication failure in main microcomputer or defective peripheral circuits	Main Ucom Block	IC7207	Check short / open of communication line (TXD_IF/RXD_IF/CLK_IF/BUSY_IF/CE_IF/REQ_IF)
			RGB	Failure in writing in the main microcomputer	Main Ucom Block	IC7207	
10	Fan failure		FAN	Failure in the fan motor or fan stopped by attached dust			
			RGB	Disconnection of cable	Relay part between CN7402 (R8) and the wire from the fan		Check if the cable is disconnected or not securely connected.
11	Unit having higher temperature			Use under high temperature	Surrounding/internal temperature		Temperature detected by a sensor must not exceed 65°C (TEMP3) /95°C (TEMP2)
			AUDIO AMP	Disconnection of cable	CN5003(AP3) - CN9702(SP1)		Check if the cable is disconnected or not securely connected.
14	Communication failure in IF EEPROM		AV I/O	Communication failure in EEPROM or defective peripheral circuits	I/F Ucom Block	IC8705	Check short / open of E2P_SCL/E2P_SDA
15	Other failures	VCC-D1	RGB	Defective circuits in the 12V system			Check for shortcircuits in the 12V system.
		VCC-D2	RGB	Defective circuits in the 13.5V and 6.5V systems.			Check for shortcircuits in the 13.5V and 6.5V systems.
		VCC-D4	AV I/O	Defective circuits in the 3.3V system of HDMI 2.			Check for shortcircuits in the 3.3V system of HDMI 2.

• Diagnosis of abnormalities other than shutdown and power-down

Symptoms	Defective Assy	Abnormal Summary	Point to be Checked	Possible Defective Part	Remarks
No power (LED unlit)		Disconnection of cable	CN7404		Check if the connection between the POWER SUPPLY and RGB assemblies is properly made.
	POWER SUPPLY	STB 3.3 V not started	CN7404(AV1)-11 pin		
	AV I/O	Defective IF microcomputer	IF Ucom Block	IC8702	Check if the oscillation is normal (X8701 = 32 kHz, X8702 = 9.8 MHz) and if RESET is set to H (IC8703).
No power (The LED remains lit in red and does not light in green.)	RGB	Defective main microcomputer	Main Ucom Block	IC7207	If communication with the main microcomputer fails approx. 20 seconds after the AC power is on, the main microcomputer may be defective.
No power (The LED remains lit in red and dgreen.)		Detect Trap switch	CN7204		Check if the TRAP switch is secured in its position correctly. See "7.1.8 How to cancel the TRAP switch."
		Defective Trap switch		ASG1089	Check if the unit operates normally when the TRAP switch is canceled. See "7.1.8 How to cancel the TRAP switch."
Key input not effective		Disconnection of cable	CN4801 - CN9002 CN9001 - CN8702		Check if the cables are not connected or securely connected.
Remote control unit not effective		Disconnection of cable	CN4901 - CN8901		Check if the cable is not connected or securely connected.
	IR RECEIVE	Defective IR receiver section	IR	U4901	Check if a pulse is output when the key corresponding to Pin 3 of the CN4901 is pressed.
Abnormality in a one-eighth area of the screen	DIGITAL VIDEO	Defective IC4	IC4 Block	IC5401	Check if an abnormal area in the screen changes when the FPC connected to the address corresponding to the abnormal area is replaced with the one corresponding to the next address.
	ADDRESS				Check that an abnormal area in the screen does not change when the FPC connected to the address corresponding to the abnormal area is replaced with the one corresponding to the next address.
Abnormal screen (Data of every other dot are abnormal)		Defective 114-pin FPC	CN7101 - CN5001	ADY1081	Check if the FPC is broken or not securely connected.

• **Block diagram of the power-down signal system**



• Power-down diagnosis (defective points)

	PD Circuit in operation	Defective Assy	Reason for Power-down	Point to be Checked	Possible Defective Part	Remarks
1	NONE					
2	POWER	POWER SUPPLY Unit				If the elapsed time from relay-on until the LED in the power supply unit lights is about 2-4 seconds, the defective assembly may be the 50 (43) X or Y DRIVE.
		50 (43) X DRIVE Assy	VSUS UVP	X SUS BLOCK	IC1203 - IC1207 (mask module)	
		50 (43) Y DRIVE Assy	VSUS UVP	Y SUS BLOCK	IC2303 - IC2307 (mask module)	
3	SCAN	50 (43) SCAN A, B Assy or Y 50 (43) DRIVE Assy	VH UVP	SCAN IC	SCAN IC	
			VH UVP	VH DC/DC	IC2401, IC2402, IC2410, L2401	
			Disconnection of cable detected	CN2001, CN2301		
4	SCN-5V	50 (43) SCAN A, B Assy or 50 (43) Y DRIVE Assy	Disconnection of cable detected	CN2101, CN2102		
			IC5V UVP	SCAN IC, IC5V DC/DC Y SUS BLOCK	SCAN IC, Q2401, Q2402, IC2304, IC2309	
			IC5V OVP	IC5V DC/DC	IC2403, IC2411	
5	Y-DRIVE	50 (43) Y DRIVE Assy	+16.5V OCP	Y SUS BLOCK	IC2303 - IC2307 (mask module), IC2301, IC2304, R2309	
6	Y-DCDC	50 (43) Y DRIVE Assy	VOFS UVP	VOFS DC/DC	IC2404, IC2412, Q2404, Q2407	
			VOFS OVP	VOFS DC/DC	IC2404, IC2412	
			VH OVP	VH DC/DC	IC2402, IC2410	
7	Y-SUS	50 (43) Y DRIVE Assy	Power-down caused by detection of middle-point voltage	Y RESONANCE BLOCK	Q2202, Q2214, Q2205, Q2206, Q2208, Q2209, Q2211, Q2212, IC2201, IC2202, Control signal series resistors	
		DIGITAL VIDEO Assy	Power-down caused by detection of middle-point voltage	DIGITAL VIDEO Assy	IC5401, Control signal series resistors	
8	ADRS	50 (43) ADDRESS Assy	Disconnection of cable detected	CN1501		
			Power-down caused by detection of a power surge	ADR RESONANCE BLOCK	R1631, Q1601, D1602	
			Power-down caused by detection of middle-point voltage	ADR RESONANCE BLOCK	Q1602, C1609, D1606, D1607	
9	X-DRIVE	50 (43) X DRIVE Assy	Disconnection of cable detected	CN1001, CN1201		
			+16.5V OCP	X SUS BLOCK	IC1203, IC1207 (mask module), IC1204, IC1206, R1230	
			VRN OCP	X SUS BLOCK	Q1205, R1226, R1251	
10	X-DCDC	50 (43) X DRIVE Assy	VRN OVP	VRN DC/DC	IC1403, IC1404	
			VRN UVP	VRN DC/DC	IC1402, IC1403, IC1404	
				X SUS BLOCK	Q1205, R1226, R1251	
11	X-SUS	50 (43) X DRIVE Assy	Power-down caused by detection of middle-point voltage	X RESONANCE BLOCK	Q1102, Q1103, Q1105, Q1106, Q1108, Q1109, Q1111, Q1112, IC1101, IC1102, Control signal series resistors	
		DIGITAL VIDEO Assy	Power-down caused by detection of middle-point voltage	DIGITAL VIDEO Assy	IC5401, Control signal series resistors	
12	DIG-DCDC	DIGITAL VIDEO Assy	DCDC +3.3V, +1.5V OVP	DC DC CONVERTER BLOCK	U5601 (DC DC CONVERTER Module)	

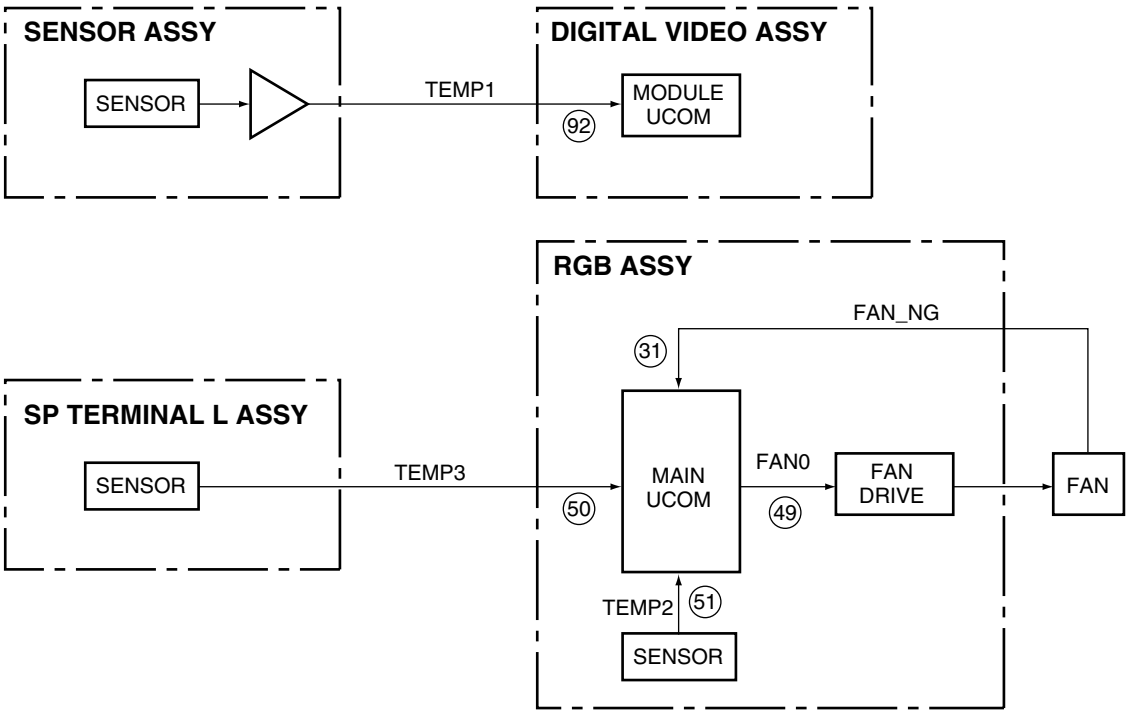
OVP : **O**ver **V**oltage **P**rotection
UVP : **U**nder **V**oltage **P**rotection
OCP : **O**ver **C**urrent **P**rotection

Note: 50 (43) *** Assy means 50 *** Assy or 43 *** Assy.

7.1.3 PROCESSING AT THE TIME OF ABNORMALITIES

Fan and temperature sensor

● **Circuitry**



● **Port monitoring specifications**

Port Name	Shutdown Name	Assign	Control Microcomputer	Active	Remarks
FAN_NG	FAN	31	Main	Shutdown when the signal becomes high	Disconnection of the fan connector or abnormality in operation of the fan detected
TEMP1	Unit under high temperature	92	Module	Shutdown when the set value is exceeded	Monitoring high temperature of the panel, Drive system temperature compensation
TEMP2	Unit under high temperature	51	Main		Monitoring high temperature of boards
TEMP3	Unit under high temperature	50	Main		Monitoring ambient temperature

7.1.4 TEMPERATURE COMPENSATION OF DRIVE SYSTEM VOLTAGE

Function: To control the DRIVE-system voltage according to the temperature (Temperature compensation functions such that the voltage is lowered on the lower-temperature side and the voltage becomes higher on the higher-temperature side.)

Purpose: For improving the yield by compensating for the temperature characteristics of the panel

Note: • Temperature compensation is performed only for the VSUS voltage, and not for the VOFS voltage. This compensation is controlled by the software.
• Temperature compensation is carried out with the value of TEMP1.

7.1.5 POWER ON/OFF FUNCTION FOR THE LARGE-SIGNAL SYSTEM

Function: Only the power for the low voltage lines (16 V, 12 V, and 6.5 V) is on, and the power for the high voltage lines (VSUS, VADR) is off.

Usage: 1. Use when only an operational check for the low voltage lines is required, such as when making repairs.
2. Use when rewriting of a program for each microcomputer is required.

Methods: 1 Set the slide switch (S5201) on the DIGITAL VIDEO Assy to its upper position ("DRF" is mentioned on the board see Fig. below).
2. Send the "DRF" RS232C command to turn the large-signal system off.
3. Send the "DRN" RS232C command to turn the large-signal system on.

Notes:

- As the unit enters Power-Down and Muting On mode when Methods 1 and 2 are performed, and power-downs other than those caused by the power (PS_PD) and DC-DC-converter (DIGITAL_DC-DC) circuits are not activated.
- If the slide switch is set from OFF to ON while the power is on, a power-down will occur. Be sure to turn the power off before switching the slide switch.
- Although the "DRF" RS232C command is enabled during Standby, if the power is turned on then turned off, the unit will return to "DRN" mode.

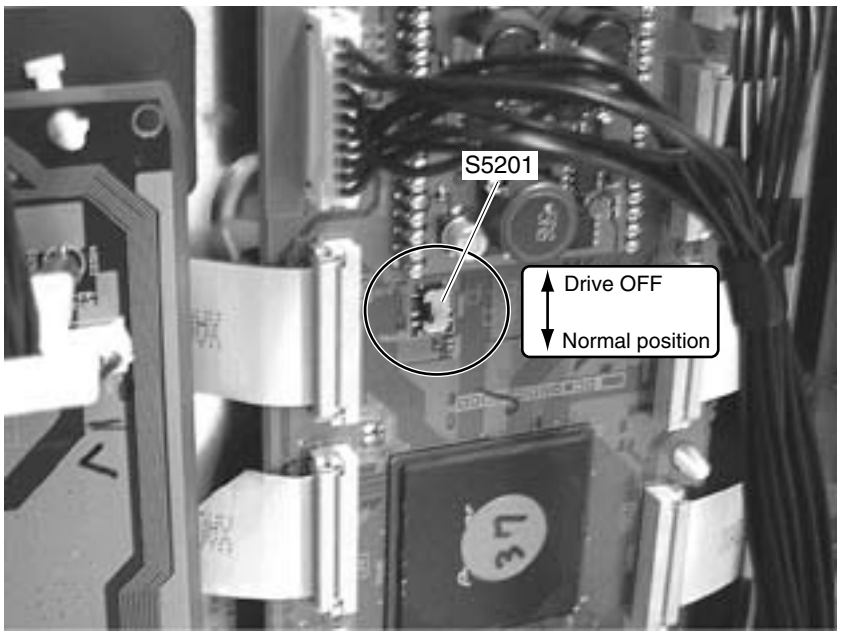


Fig. Drive OFF switch

7.1.6 BACKUP THE ADJUSTMENT VALUES FOR THE MAIN UNIT

■ Outline

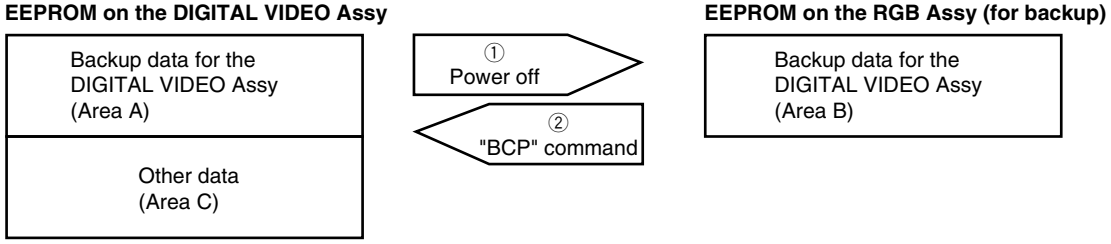
The data on the adjustment values for the main unit are stored in an EEPROM (IC5206, 4 kbits) on the DIGITAL VIDEO Assy. Part of the data (area A in the figure below) are automatically copied to an EEPROM (IC7102, 2 kbits) mounted on the RGB Assy for backup. When the DIGITAL VIDEO Assy is replaced, the backup data on the adjustment values for the main unit stored in the RGB Assy can be copied to the new DIGITAL VIDEO Assy, thus enabling you to omit newly performing adjustments on the main unit. The logs for the product (power-down log, etc.) can also be copied.

■ Data to be backed up in the digital EEPROM (area A)

- Margin adjustment values (Vsus, Vofset)
- Power upper-limit adjustment value (ABL)
- PANEL white-balance adjustment values
  (PANEL-R HIGH, PANEL-G HIGH, PANEL-B HIGH, PANEL-R LOW, PANEL-G LOW, PANEL-B LOW)
- Drive waveform adjustment values
  (X-SUS-U1, X-SUS-U2, X-SUS-D1, X-SUS-D2, Y-SUS-U1, Y-SUS-U2, Y-SUS-D1, Y-SUS-D2, Y-SUS-D3, Y-SUS-D4)
- Hour meter
- Pulse meter
- Number of times the power has been turned on
- PD/SD logs

■ Basic flow of automatic backup

Using a keyword, the data in areas A and B are judged as to whether they have been adjusted or not, then copying is performed.

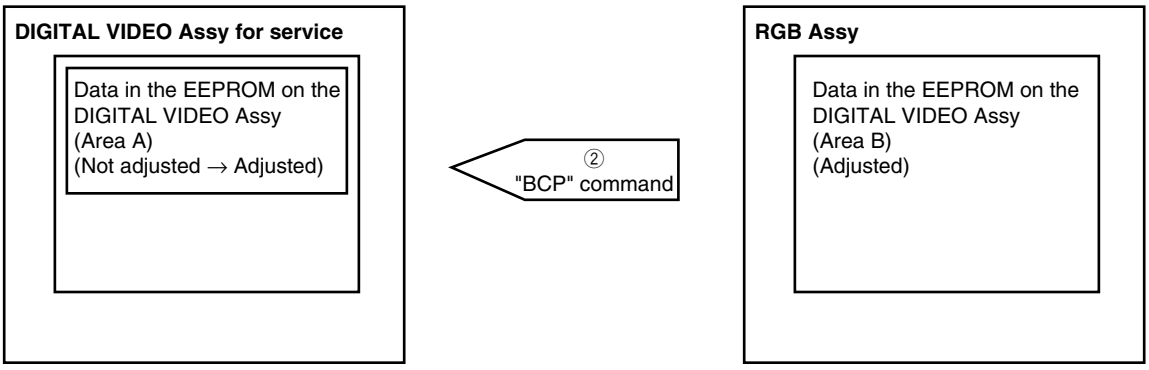


① The keyword on the DIGITAL VIDEO Assy is checked when the power is turned off, and if it is "adjusted", automatic backup is performed.
② If the keyword on the RGB Assy (Area B) is "adjusted," copying can be performed with the "BCP" RS232C command.

■ Actual automatic backup operations

1. When the DIGITAL VIDEO Assy is replaced with an Assy for service

Changing of keywords is not required. Replace the DIGITAL VIDEO Assy with an Assy for service, and send the "BCP" RS232C command. Thus, the backup data in the EEPROM on the RGB Assy are copied to the EEPROM on the DIGITAL VIDEO Assy for service.



2. When a repaired DIGITAL VIDEO Assy is mounted on another unit (reuse of the repaired DIGITAL VIDEO Assy)

The keyword of the DIGITAL VIDEO Assy to be reused must be changed to "not adjusted" using the "UAJ" RS232C command.

Note 1: If a repaired DIGITAL VIDEO Assy is mounted in another unit (Unit 2) without this change of keyword, and the power to the unit 2 is turned off, the data in force before the repair of the DIGITAL VIDEO Assy will be copied to Area B of the RGB Assy of Unit 2, overwriting the data necessary for Unit 2. Once overwritten, the original data will not be restored.

3. When a repaired DIGITAL VIDEO Assy is mounted on the original unit (reuse of the repaired DIGITAL VIDEO Assy)
Changing of keywords is not required. After the repaired DIGITAL VIDEO Assy is mounted in the original unit, the unit can operate with its latest adjustment values.

4. When both the DIGITAL VIDEO Assy and RGB Assy are simultaneously replaced with other assemblies
The automatic backup function of this unit will not work properly.

Note 2: Readjustment of the main unit is required.
Note 3: After readjustment of the main unit, send the "FAJ" RS232C command to change the keyword of the DIGITAL VIDEO Assy to "adjusted." Thus, when the unit is turned off, automatic backup of adjustment data is performed properly.
Note 4: If readjustment of the main unit is totally impossible, it can be omitted by installing the EEPROM (IC5206, 4 kbits) originally mounted on the DIGITAL VIDEO Assy for service.
Note 5: After copying the backup data, turn the power off then back on to reflect the copied backup data.

■ Miscellaneous

If the white balance (W/B) value is largely shifted because of aging, etc., W/B adjustment is required. (As this may be a rare case, the adjustment procedures are described below, just for your reference.

[W/B-adjustment procedures]

The W/B adjustment can be performed with the RS232C commands. Minolta CA-100 color difference meter are required.

① Send the "FAY" RS232C command to enter Factory mode.

② Set the keyword for the DIGITAL VIDEO Assy to "not adjusted" with the "UAJ" RS232C command.

③ Obtain the current adjustment values in the two adjustment tables (see "6.6 Command Description").
- Shifting to Table 1: Send the "M51" and "F60" commands. Obtaining the adjustment values: Send the "GPW" command.
- Shifting to Table 2: Send the "M51" and "F75" commands. Obtaining the adjustment values: Send the "GPW" command.

④ For each table, set the brightness.
- Adjustment in Table 1: After sending the "F60" command, perform adjustment.
- Adjustment in Table 2: After sending the "F75" command, perform adjustment.

For each table, change the RGB parameters so that the values measured using a Minolta color difference meter (CA-100) become as indicated below. In this case, any one of PRH, PGH, or PBH must be set to 256.

	Cd/mm
x	285
y	289

"PRH***" : 000 - 511
"PGH***" : 000 - 511
"PBH***" : 000 - 511

⑤ Check after adjustment
- Shifting to Table 1: Send the "F60" command. Obtaining the adjustment values: Send the "GPW" command.
- Shifting to Table 2: Send the "F75" command. Obtaining the adjustment values: Send the "GPW" command.

Check that the adjustment data have been changed.

⑥ Change the keyword for the DIGITAL VIDEO Assy to "adjusted" by sending the "FAJ" RS232C command.
Note: Use a Minolta CA-100 color difference meter or the equivalent for measurement. Otherwise, the specifications of the product cannot be assured.

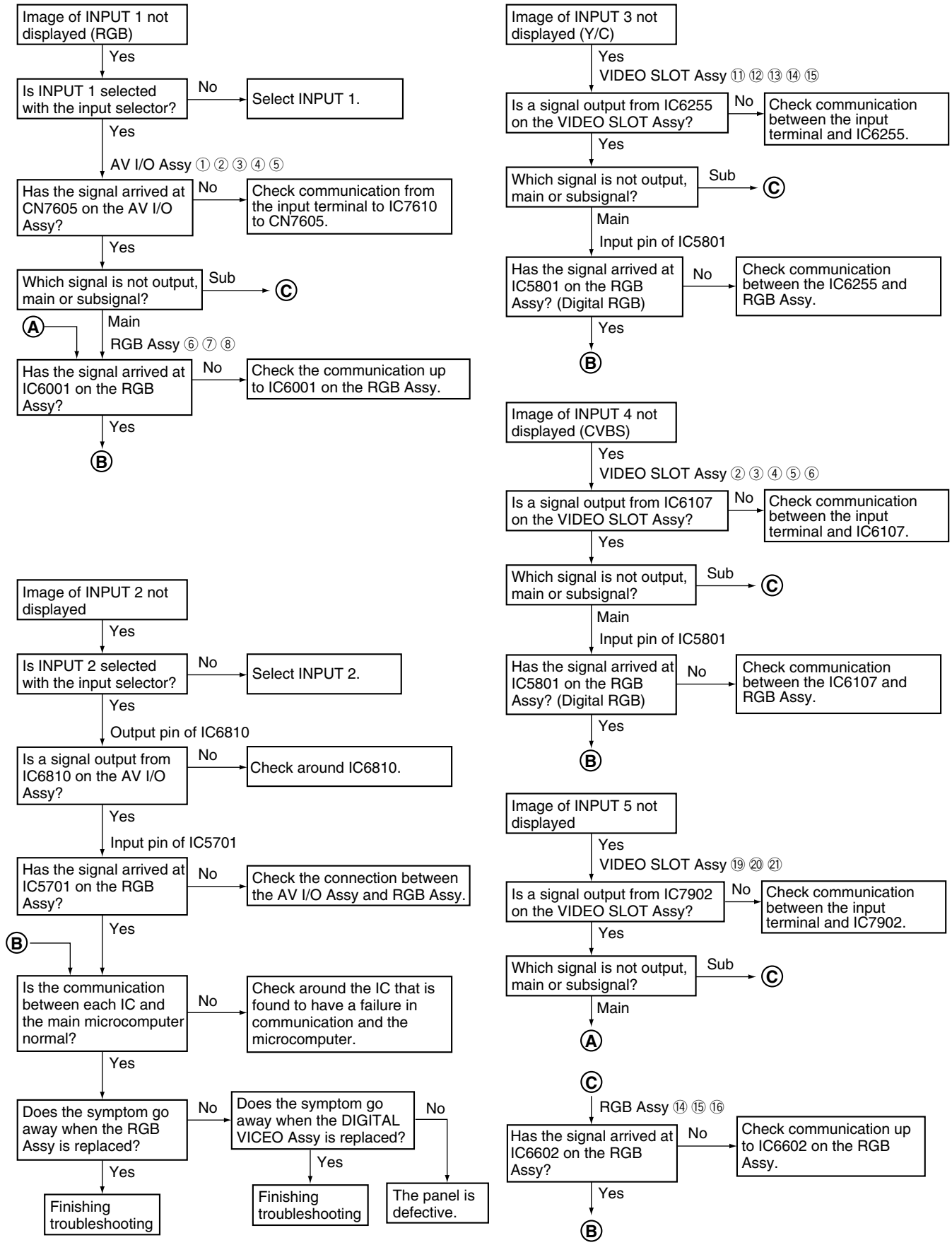
⑦ Send the "FAN" RS232C command to enter Normal mode.
- If the value is different from that you set, readjust it.

Note: To reset the adjustment to its original value, send the "BCP" RS232C command then turn the power off then back on to retrieve the backup data.

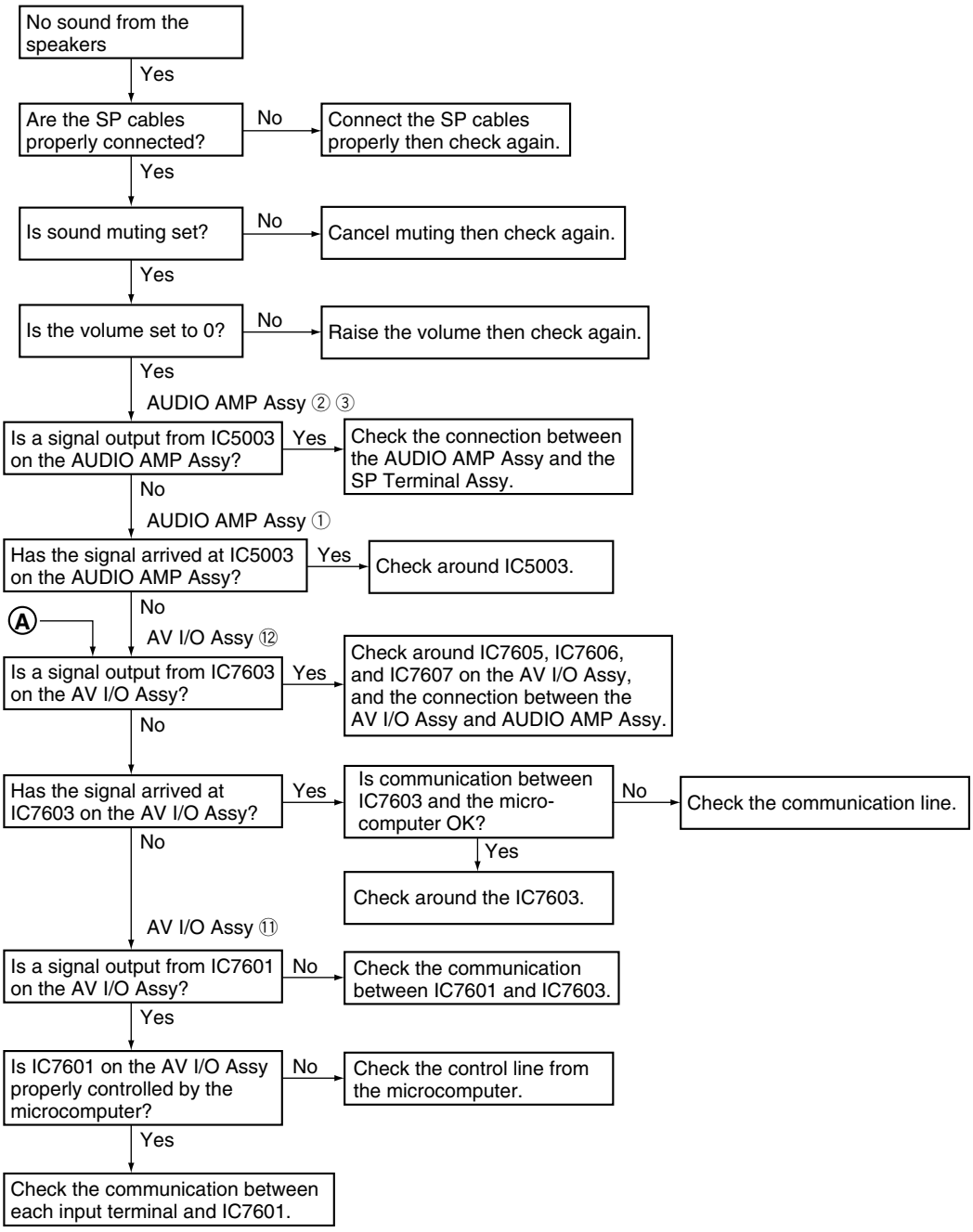
- The setting values for color temperature differ between Factory mode and Normal mode. Therefore, the setting value for color-difference signals in Normal mode are different from those in Factory mode, even after the White Balance adjustment has been performed.

7.1.7 TROUBLESHOOTING

Video



Audio


No sound from the speakers
Yes
Are the SP cables properly connected?
No
Connect the SP cables properly then check again.
Yes
Is sound muting set?
No
Cancel muting then check again.
Yes
Is the volume set to 0?
No
Raise the volume then check again.
Yes
AUDIO AMP Assy ② ③
Is a signal output from IC5003 on the AUDIO AMP Assy?
Yes
Check the connection between the AUDIO AMP Assy and the SP Terminal Assy.
No
AUDIO AMP Assy ①
Has the signal arrived at IC5003 on the AUDIO AMP Assy?
Yes
Check around IC5003.
No
Ⓐ
AV I/O Assy ⑫
Is a signal output from IC7603 on the AV I/O Assy?
Yes
Check around IC7605, IC7606, and IC7607 on the AV I/O Assy, and the connection between the AV I/O Assy and AUDIO AMP Assy.
No
Has the signal arrived at IC7603 on the AV I/O Assy?
Yes
Is communication between IC7603 and the micro-computer OK?
No
Check the communication line.
Yes
Check around the IC7603.
No
AV I/O Assy ⑪
Is a signal output from IC7601 on the AV I/O Assy?
No
Check the communication between IC7601 and IC7603.
Yes
Is IC7601 on the AV I/O Assy properly controlled by the microcomputer?
No
Check the control line from the microcomputer.
Yes
Check the communication between each input terminal and IC7601.

7.1.8 CANCELING DETECTION BY THE TRAP SWITCH

• Canceling detection by the TRAP switch

Outline: For video data transmission from the HDMI input to the plasma display, digital signals are used. Therefore, this unit adopts the HDCP (High-bandwidth Digital Content Protection) system for copyright protection. This unit is also provided with a detection switch (TRAP switch) that will prohibit the unit from being turned on again if the rear case of the unit is opened, in order to prevent the panel technology from being leaked out.

Function: To deactivate the detection of the TRAP switch

Purposes: 1. During production of this unit, adjusting with the rear cover opened is possible.
2. During servicing or repairing, diagnoses of the assemblies are possible while the power is on.

Methods: For setting, use RS232C commands:
TSN: Ignore the monitoring of the switch
CTM: Clear the detection log of the switch
TSY: Reactivate monitoring of the switch

Notes:

- The TRAP switch is located on the chassis (see Fig. below).
- Once rear case opening is detected, send the TSN and CTM commands.
- Because the TSN command is not stored in memory, monitoring of the switch can be reactivated by turning the unit off then back on.
- The same setting is possible using the Factory menu.

● **How to enter Factory mode using the remote control unit**

Please refer to the technical documentation (Service knowhow).

● **How to clear the detection log of the TRAP switch**

In the INITIALIZE layer, hold the OSD key on the remote control unit pressed for at least 3 seconds.

● **After a power-down, to cancel detection of the TRAP switch using only the remote control unit, follow the procedures below.**

First, fix the TRAP switch to its depressed position. Set the drive ON/OFF switch in the DIGITAL VIDEO Assy to OFF,
Then enter the Factory mode. Press the MUTE key five times, then hold the DISPLAY key pressed for at least 4 seconds. Set the AC switch on the panel to OFF. The log is also cleared. Then set the drive ON/OFF switch to ON.

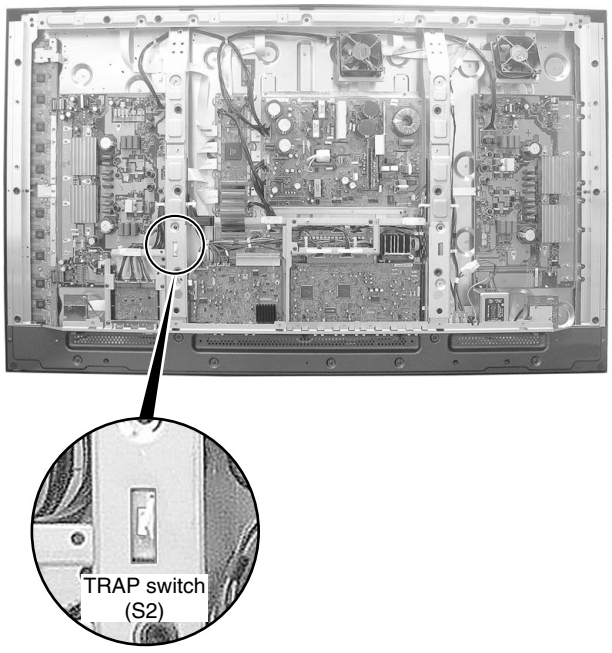


Fig. TRAP switch

7.1.9 DISASSEMBLY

• PDP-5004, PDP-5014 models

1 Rear Case, Front Case Assy

① Remove the grip by removing the four screws.

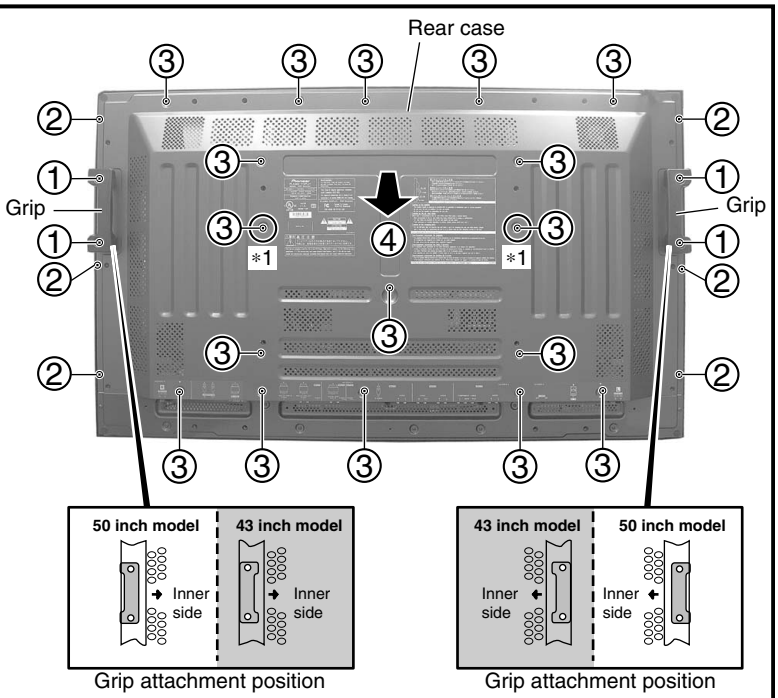
Note:
When reattaching the grip, be sure to securely tighten the screws.

② Remove the six screws.

③ Remove the seventeen screws.

Note :
When reattaching the rear case, first attach the screws for the holes indicated with ∗1 to place the rear case in the correct position.

④ Remove the rear case.



⑤ Remove the three screws.

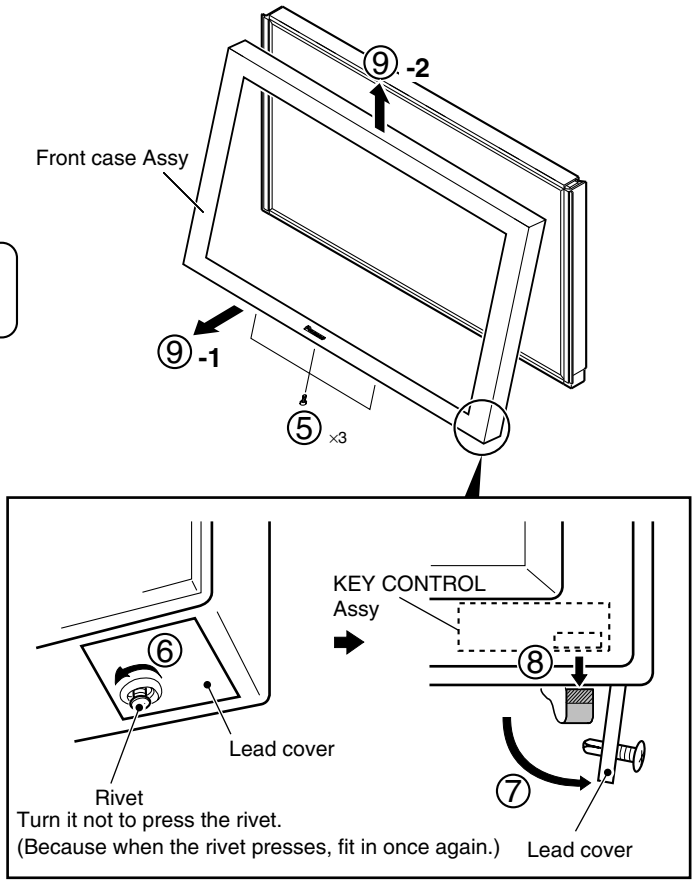
⑥ Remove the one rivet.

⑦ Remove the lead cover.

⑧ Disconnect the flexible cable.

⑨ Remove the front case Assy.

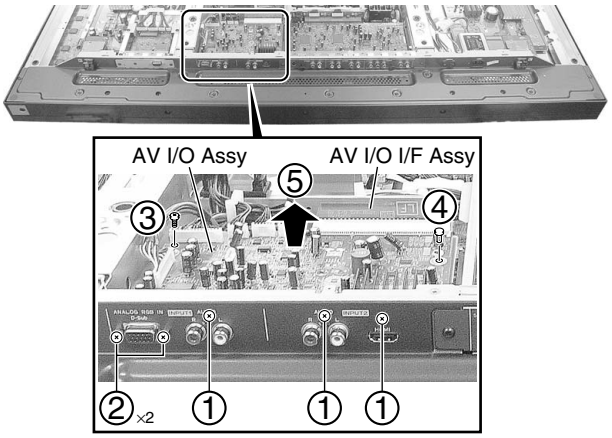
Note:
If only the front case Assy must be removed, without removing the rear case, perform the steps ⑤ to ⑨.



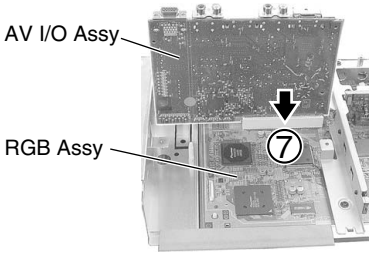
2 Multi Base Section

● Diagnosis of AV I/O Assy

① Remove the Three screws.
② Remove the two hexagon head screws.
③ Remove the one screw.
④ Remove the one pin grommet.
⑤ Remove the AV I/O Assy with the AV I/O I/F Assy.



⑥ Remove the AV I/O Assy from the AV I/O I/F Assy.
⑦ Connect the AV I/O Assy to slot of the RGB Assy.

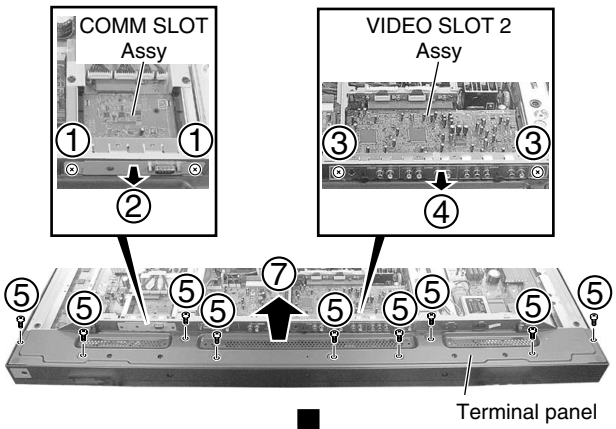


Diagnosis

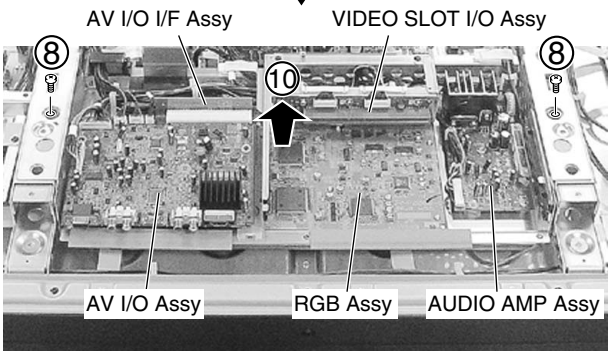
Note:
The cooling fan may rotate during diagnosis, in the following cases:
- When the rotation speed of the fan has been set to maximum for Integrator mode
- When the ambient temperature surrounding the temperature sensor is 35˚C or higher

● Removing Multi Base Section

① Remove the two Torque screws.
② Remove the COMM SLOT Assy.
③ Remove the two Torque screws.
④ Remove the VIDEO SLOT 2 Assy.
⑤ Remove the nine screws.
⑥ Disconnect the some connectors at need.
⑦ Remove the terminal panel.



⑧ Remove the two screws.
⑨ Disconnect the some connectors at need.
⑩ Remove the multi base section.



Note:
Some tiny metal shavings may be released from the paring screw section when the VIDEO SLOT I/F Assy is detached from the sheet metal and is reattached to it. Be sure to clear away any shavings or other foreign matter before reattaching it to the RGB Assy.

3 X CONNECTOR A Assy, B Assy, 50 SCAN A Assy and B Assy

● X CONNECTOR A and B Assy

① Remove the enclosure sheet 1.

Note:
Enclosure sheet 1 is attached to comply with the safety standards. Make sure that it will not be shifted or peeled off. If it is peeled off, securely reattach it in its original place.

② Remove the jumper wire by removing the flat clamp.

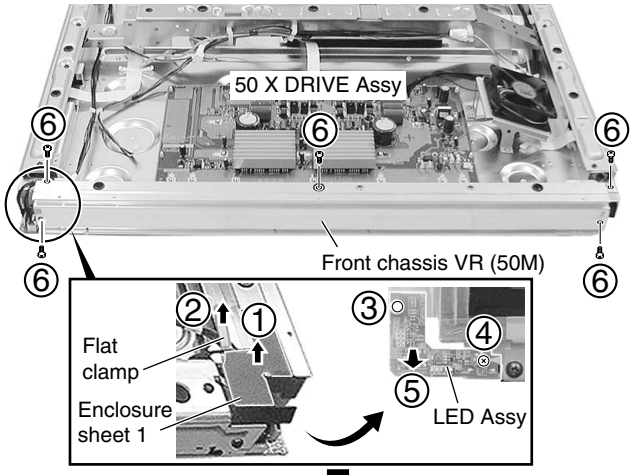
③ Remove the one nyron rivet.

④ Remove the one screw.

Note: Be sure to remove this screw. If you don't, the connector on the LED Assy may be damaged.

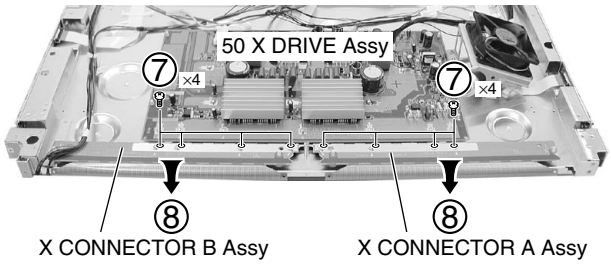
⑤ Remove the LED Assy.

⑥ Remove the front chassis VR (50M) by removing the five screws.



⑦ Remove the eight screws.

⑧ Remove the X CONNECTOR A and B Assy.



Note when reassembling the front chassis VR (50M)
Remove or loosen the screws that secure the panel holder in order not to damage the front protect panel Assy.

● 50 SCAN A and B Assy

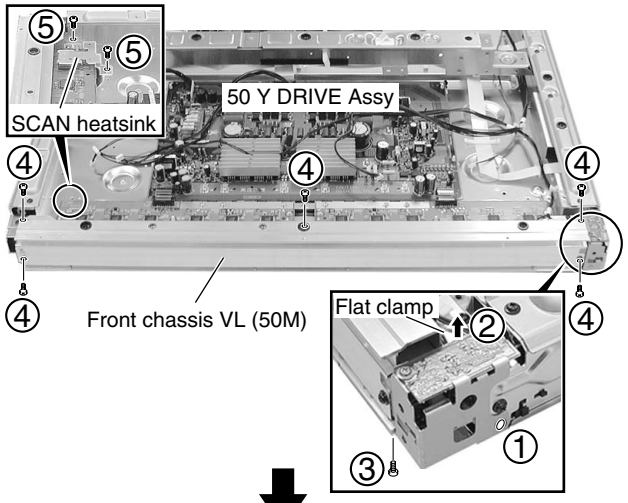
① Remove the one nylon rivet.

② Remove the jumper wire by removing the flat clamp.

③ Remove the one screw.

④ Remove the front chassis VL (50M) by removing the five screws.

⑤ Remove the SCAN heatsink by removing the two screws.

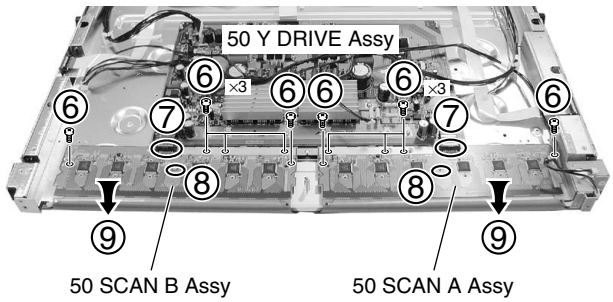


⑥ Remove the ten screws.

⑦ Disconnect the two pin connectors.

⑧ Remove the two spacers.

⑨ Remove the 50 SCAN A and B Assy.



Note when reassembling the front chassis VL (50M)
Remove or loosen the screws that secure the panel holder in order not to damage the front protect panel Assy.

• **PDP-4304, PDP-4314 models**

1 Rear Case, Front Case Assy

① Remove the grip by removing the four screws.

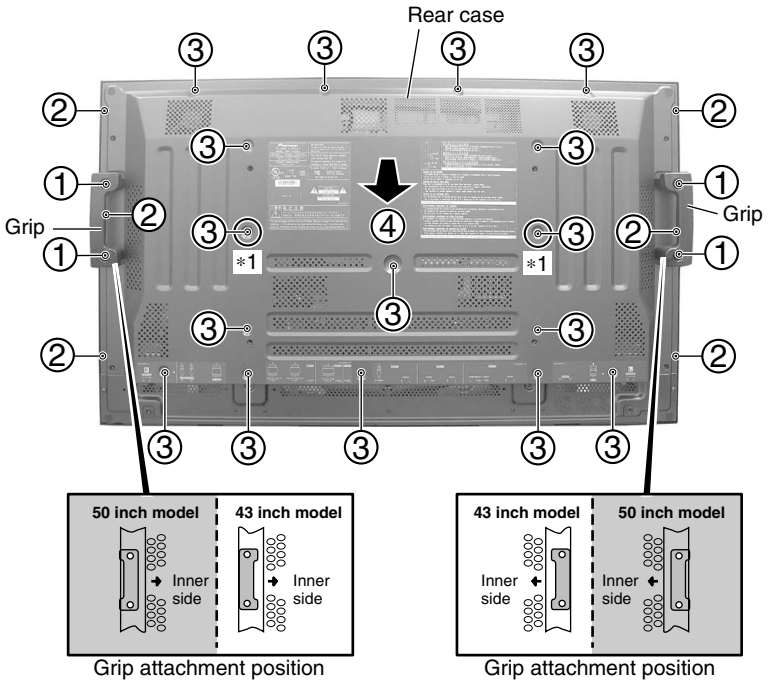
Note:
When reattaching the grip, be sure to securely tighten the screws.

② Remove the six screws.

③ Remove the sixteen screws.

Note :
When reattaching the rear case, first attach the screws for the holes indicated with ∗1 to place the rear case in the correct position.

④ Remove the rear case.



⑤ Remove the three screws.

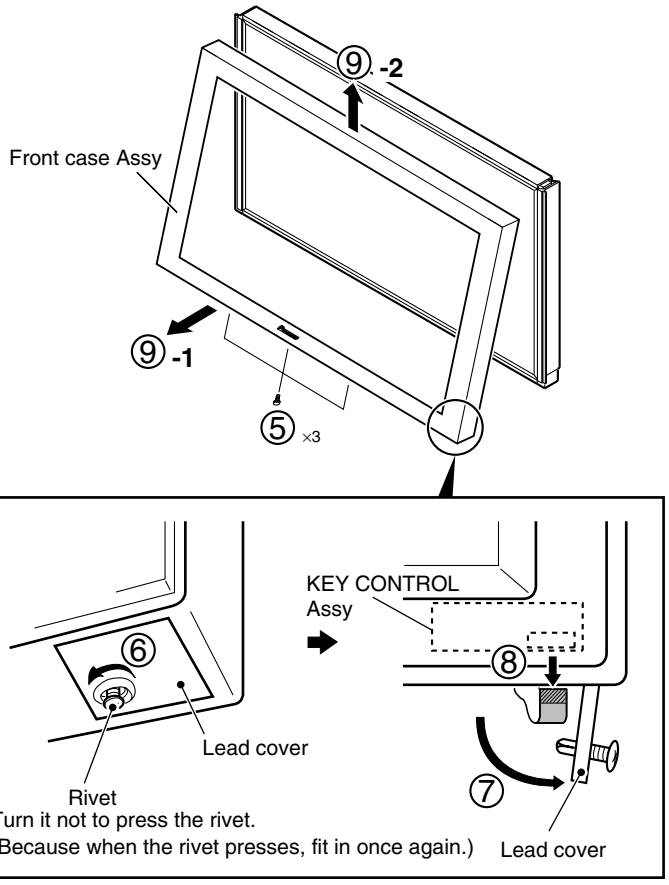
⑥ Remove the one rivet.

⑦ Remove the lead cover.

⑧ Disconnect the flexible cable.

⑨ Remove the front case Assy.

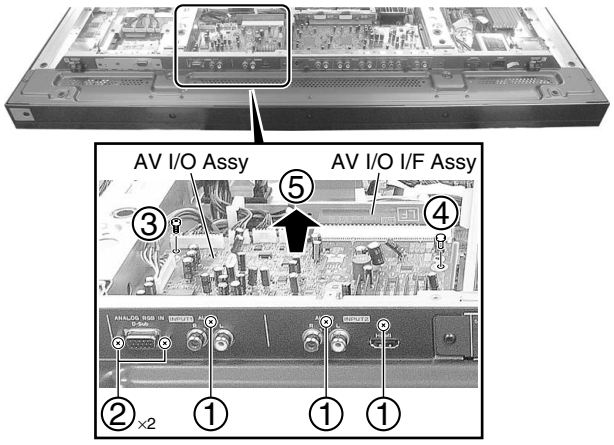
Note:
If only the front case Assy must be removed, without removing the rear case, perform the steps ⑤ to ⑨.



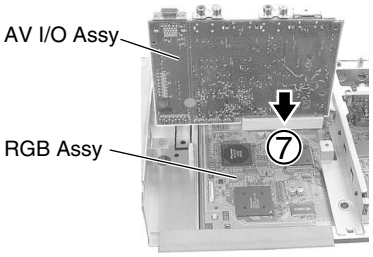
2 Multi Base Section

● Diagnosis of AV I/O Assy

① Remove the three screws.
② Remove the two hexagon head screws.
③ Remove the one screw.
④ Remove the one pin grommet.
⑤ Remove the AV I/O Assy with the AV I/O I/F Assy.



⑥ Remove the AV I/O Assy from the AV I/O I/F Assy.
⑦ Connect the AV I/O Assy to slot of the RGB Assy.

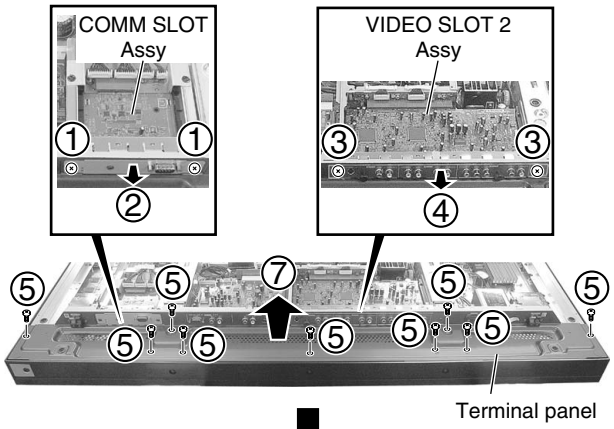


Diagnosis

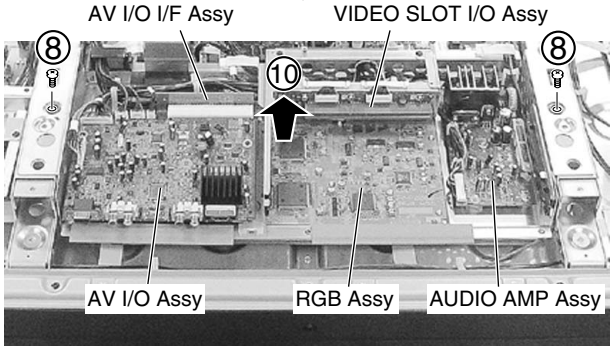
Note:
The cooling fan may rotate during diagnosis, in the following cases:
- When the rotation speed of the fan has been set to maximum for Integrator mode
- When the ambient temperature surrounding the temperature sensor is 35˚C or higher

● Removing Multi Base Section

① Remove the two Torque screws.
② Remove the COMM SLOT Assy.
③ Remove the two Torque screws.
④ Remove the VIDEO SLOT 2 Assy.
⑤ Remove the nine screws.
⑥ Disconnect the some connectors at need.
⑦ Remove the terminal panel.



⑧ Remove the two screws.
⑨ Disconnect the some connectors at need.
⑩ Remove the multi base section.



Note:
Some tiny metal shavings may be released from the paring screw section when the VIDEO SLOT I/F Assy is detached from the sheet metal and is reattached to it. Be sure to clear away any shavings or other foreign matter before reattaching it to the RGB Assy.

3 X CONNECTOR A Assy, B Assy, 43 SCAN A Assy and B Assy

● X CONNECTOR A and B Assy

① Remove the enclosure sheet 1.

Note:
Enclosure sheet 1 is attached to comply with the safety standards. Make sure that it will not be shifted or peeled off. If it is peeled off, securely reattach it in its original place.

② Remove the jumper wire by removing the flat clamp.

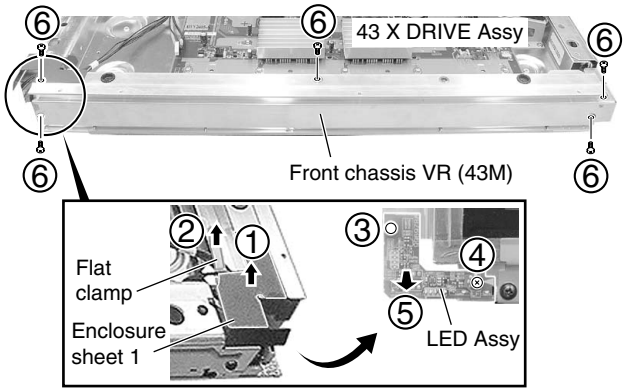
③ Remove the one nylon rivet.

④ Remove the one screw.

Note: Be sure to remove this screw. If you don't, the connector on the LED Assy may be damaged.

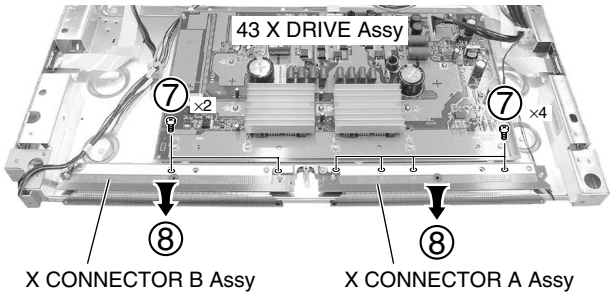
⑤ Remove the LED Assy.

⑥ Remove the front chassis VR (43M) by removing the five screws.



⑦ Remove the six screws.

⑧ Remove the X CONNECTOR A and B Assy.



Note when reassembling the front chassis VR (43M)
Remove or loosen the screws that secure the panel holder in order not to damage the front protect panel Assy.

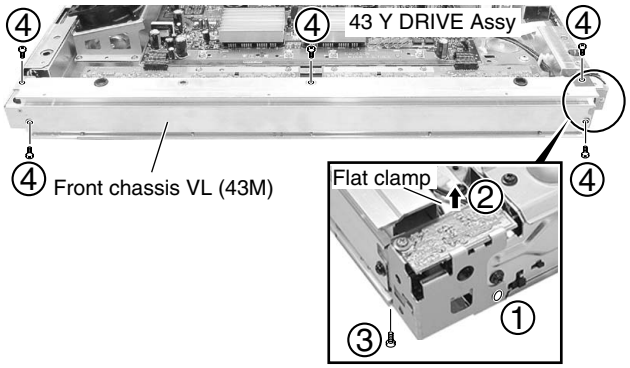
● 43 SCAN A and B Assy

① Remove the one nylon rivet.

② Remove the jumper wire by removing the flat clamp.

③ Remove the one screw.

④ Remove the front chassis VL (43M) by removing the five screws.



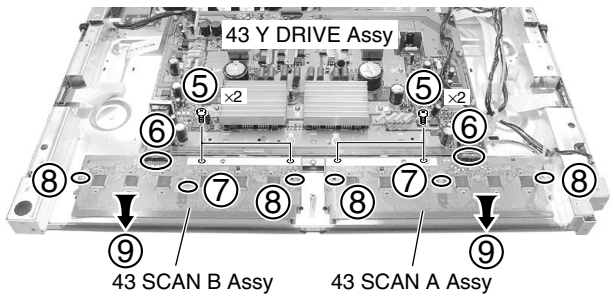
⑤ Remove the four screws.

⑥ Disconnect the two pin connectors.

⑦ Remove the two spacers.

⑧ Remove the four spacers.

⑨ Remove the 43 SCAN A and B Assy.



Note when reassembling the front chassis VL (43M)
Remove or loosen the screws that secure the panel holder in order not to damage the front protect panel Assy.

7.2 IC INFORMATIION

• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

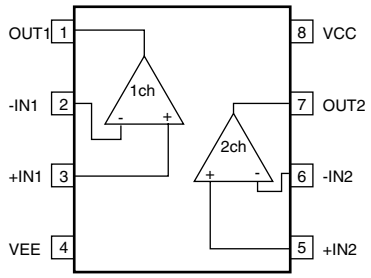
● **List of IC**

BA10393F, BA10358F, STK795-512, STK795-513, STK795-510, STK795-511, AN16003A, SN755864APZP, MBM29PL160BD-75PFTN, M30626FHPGP-P, PD5856A, AN5870SB, AD9883AKST-110, SM5301BS, BA7078AF, IC42S32200-7TG-K, MBM29PL3200BE70PFV, CXA3516R, SII9993CTG100, IC42S16100-7TG-K, LA4625

■ BA10393F (50 X DRIVE ASSY : IC1103), (43 X DRIVE ASSY : IC1103) (50 Y DRIVE ASSY : IC2211), (43 Y DRIVE ASSY : IC2211)

• Comparator IC

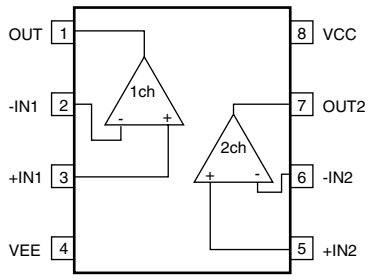
● **Pin Arrangement (Top View) / Block Diagram**



■ BA10358F (50 Y DRIVE ASSY : IC2406), (43 Y DRIVE ASSY : IC2406)

• Ope-Amp. IC

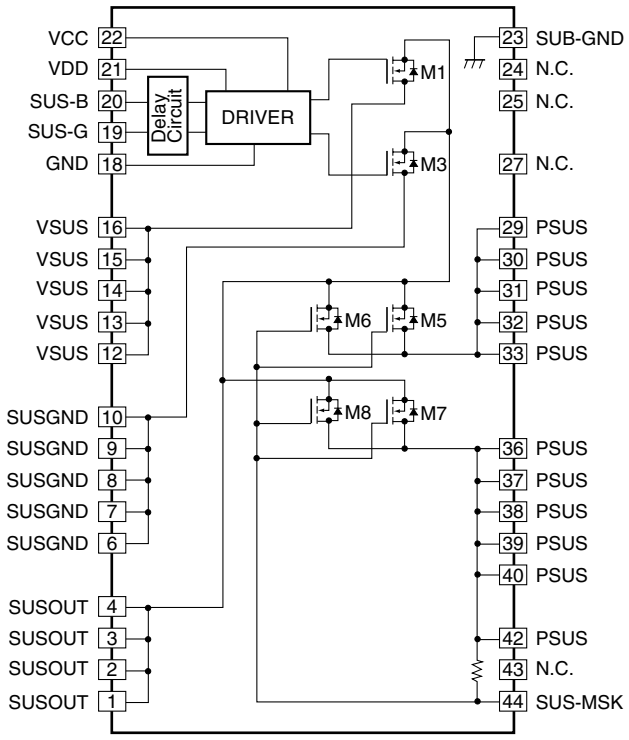
● **Pin Arrangement (Top View) / Block Diagram**



STK795-512 (50 X DRIVE ASSY : IC1203, IC1207)

• PDP Mask Module IC

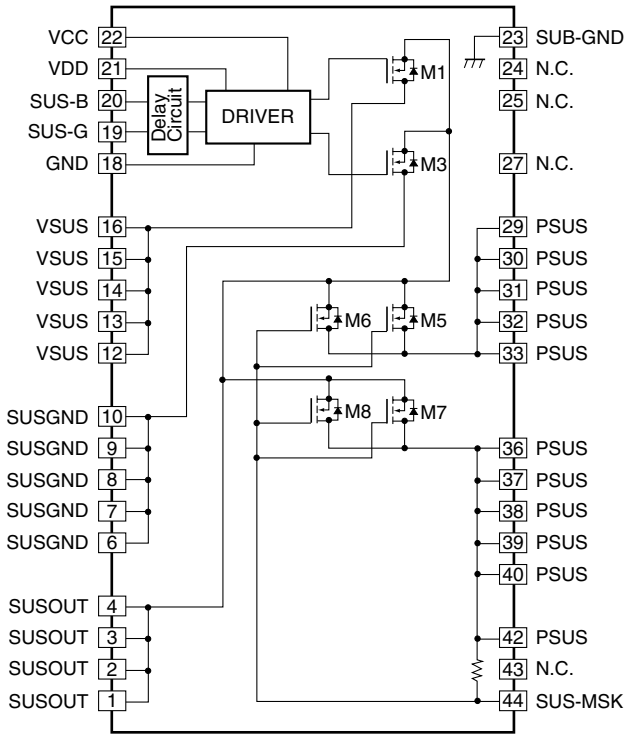
● **Block Diagram**



STK795-513 (50 Y DRIVE ASSY : IC2303, IC2307)

• PDP Mask Module IC

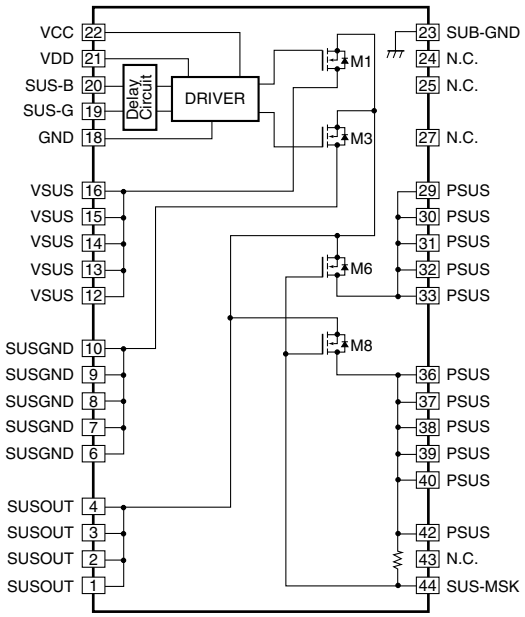
● **Block Diagram**



■ STK795-510 (43 X DRIVE ASSY: IC1203, IC1207)

• PDP Mask Module IC

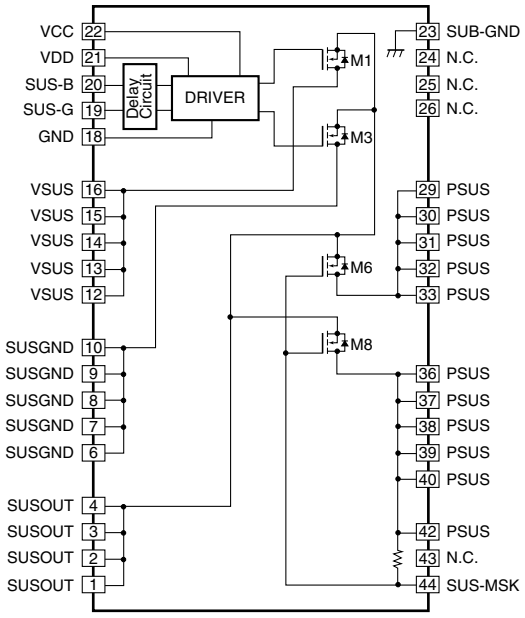
● Block Diagram



■ STK795-511 (43 Y DRIVE ASSY: IC2303, IC2307)

• PDP Mask Module IC

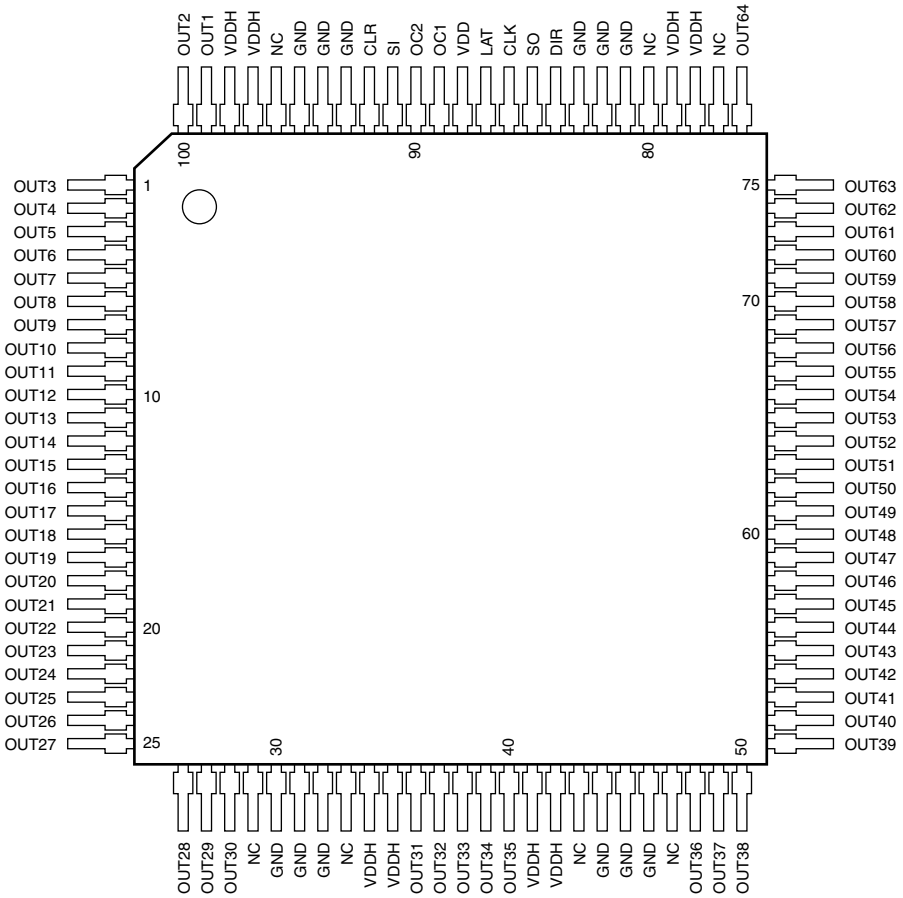
● Block Diagram



AN16003A (50 SCAN A ASSY : IC3001 - IC3006)
(50 SCAN B ASSY : IC3201 - IC3206)

• Plasma Display Panel IC

● Pin Arrangement (Top View)



● Pin Function

No.	Pin Name	Type	Function
1	OUT3	Output	High-voltage push-pull output pin
2	OUT4		
3	OUT5		
4	OUT6		
5	OUT7		
6	OUT8		
7	OUT9		
8	OUT10		
9	OUT11		
10	OUT12		

No.	Pin Name	Type	Function
11	OUT13	Output	High-voltage push-pull output pin
12	OUT14		
13	OUT15		
14	OUT16		
15	OUT17		
16	OUT18		
17	OUT19		
18	OUT20		
19	OUT21		
20	OUT22		
21	OUT23		
22	OUT24		
23	OUT25		
24	OUT26		
25	OUT27		
26	OUT28		
27	OUT29		
28	OUT30		
29	N.C	–	Not connected
30	GND	Ground	Ground pin
31	GND		
32	GND		
33	N.C	–	Not connected
34	VDDH	Supply	High-voltage circuit supply pin
35	VDDH		
36	OUT31	Output	High-voltage push-pull output pin
37	OUT32		
38	OUT33		
39	OUT34		
40	OUT35		
41	VDDH	Supply	High-voltage circuit supply pin
42	VDDH		
43	N.C	–	Not connected
44	GND	Ground	Ground pin
45	GND		
46	GND		
47	N.C	–	Not connected
48	OUT36	Output	High-voltage push-pull output pin
49	OUT37		
50	OUT38		
51	OUT39		
52	OUT40		
53	OUT41		
54	OUT42		
55	OUT43		
56	OUT44		
57	OUT45		
58	OUT46		
59	OUT47		
60	OUT48		

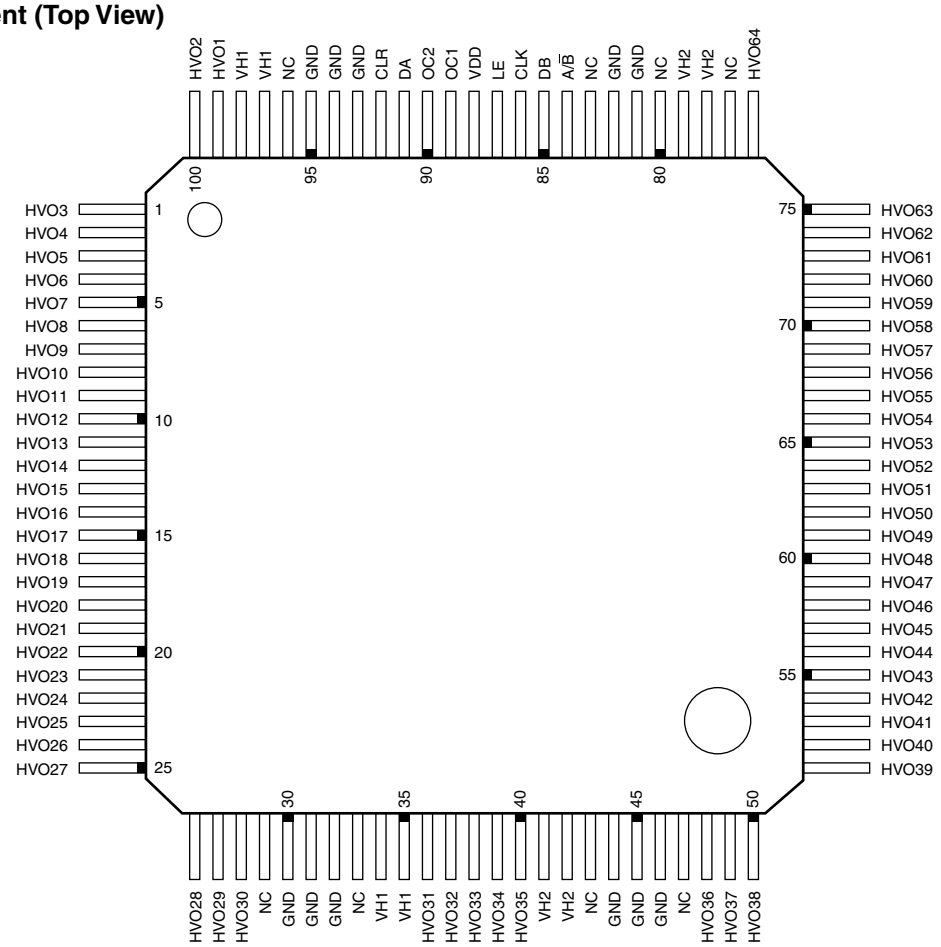
No.	Pin Name	Type	Function
61	OUT49	Output	High-voltage push-pull output pin
62	OUT50		
63	OUT51		
64	OUT52		
65	OUT53		
66	OUT54		
67	OUT55		
68	OUT56		
69	OUT57		
70	OUT58		
71	OUT59		
72	OUT60		
73	OUT61		
74	OUT62		
75	OUT63		
76	OUT64		
77	N.C	–	Not connected
78	VDDH	Supply	High-voltage circuit supply pin
79	VDDH		
80	N.C	–	Not connected
81	GND	Ground	Ground pin
82	GND		
83	GND		
84	DIR	Input	Setup pin of sift register sift direction L: Shift into reverse (SO → SI) H: Shift forward (SI → SO)
85	SO	Input / Output	Serial data input/output pin
86	CLK	Input	Serial clock input pin Fetch SI or SO data to sift register by CLK rise edge
87	LAT	Input	LAT data input pin L: Transfer shft register data to output latch H: Hold data to output latch
88	VDD	Supply	Logic supply pin
89	OC1	Input	Output control pin Control output according to the right truth value table
90	OC2		
91	SI	Input / Output	Serial data input/output pin
92	CLK	Input	All output reset pin CLK pin: L → Normal operation CLK pin: H → All output High
93	GND	Ground	Ground pin
94	GND		
95	GND		
96	N.C	–	Not connected
97	VDDH	Supply	High-voltage circuit supply pin
98	VDDH		
99	OUT1	Output	High-voltage push-pull output pin
100	OUT2		

OC1	OC1	OUT
L	L	ALL HiZ
L	H	DATA
H	L	ALL L
H	H	ALL H

SN755864APZP (43 SCAN A ASSY : IC3001 - IC3006)
(43 SCAN B ASSY : IC3201 - IC3206)

• Plasma Display Panel IC

● Pin Arrangement (Top View)



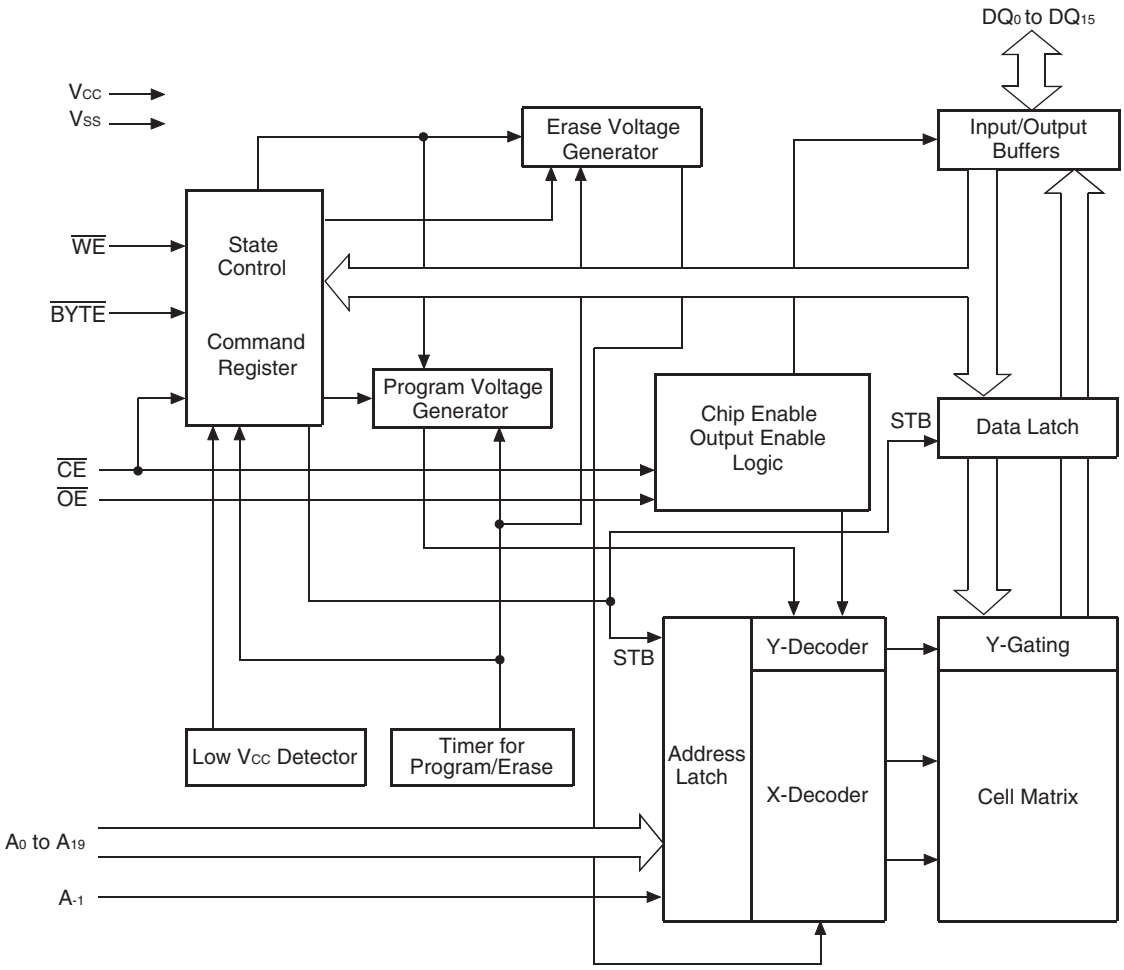
● Pin Function

Pin	Pin Name	I/O	Function
86	CLK	I	Shift clock (rising edge valid)
91	DA	I/O	Serial data input/output of shift register
85	DB	I/O	Serial data input/output of shift register
92	CLR	I	High-level clears data of shift register
87	LE	I	Low-level: through, High-level: latch
84	A/$\overline{B}$	I	Shift direction control signal of shift register
89	OC1	I	HVO output control
90	OC2	I	HVO output control
1-28,36-40,48-76,99,100	HVO1-HVO64	O	High-voltage drive output (HVO1 to HVO64)
88	VDD	–	Logic supply
30-32,44-46,81,82,93-95	GND	–	GND for logic circuits Common to HVO1 to HVO64.
34,35,97,98	VH1	–	Common high voltage power supply for HVO1 to 32.
41,42,78,79	VH2	–	Common high voltage power supply for HVO33 to 64.
29,33,43,47,77,80,83,96	NC	–	Electrically isolated

MBM29L160BD-75PFTN (DIGITAL VIDEO ASSY : IC5305)

• Flash Memory IC

● Block Diagram



■ M30626FHPGP-P (DIGITAL VIDEO ASSY : IC5201)

• PDP µCOM

● **Pin Function**

No.	Pin Name	Function	I/0	ACTIVE
1	VSUS	[D/A] Vofs power control	O	
2	VOFS	[D/A] Vofs power control	O	
3	TXD_IC4	3 serial communication with IC4MANTA - data transmission	O	
4	RXD_IC4	3 serial communication with IC4MANTA - data receive	I	
5	CLK_IC4	3 serial communication with IC4MANTA - clock output	O	
6	BYTE	(GND connection)	I	
7	CNVSS	Pin for processor mode setting (pull-down)	I	
8	NC	NC pin		
9	NC	NC pin		
10	RST_MD	Reset input	I	L
11	XOUT	Output for main clock	O	–
12	VSS	GND	–	–
13	XIN	Input for main clock	I	–
14	VCC1	Power supply = STB3.3V	–	–
15	NMI	(pull-up)	I	
16	REM_B	(Interruption) Remote control signal input (in the panel unit)	I	
17	KEY_B	(Interruption) Key signal input (in the panel unit)	I	
18	RST2	(Interruption) IC4 reset detection	I	L
19	HD_IN_B	HD signal existence distinction	I	L
20	PD_MUTE	Mute the power down output to the POWER SUPPLY Unit	O	L
21	PS_PD	PD signal in the POWER SUPPLY Unit	I	H
22	DCC_PD	PD signal of DC-DC converter	I	H
23	NC	NC pin		
24	NC	NC pin		
25	VD_IN	V. frequency count	I	L
26	EEPRST	EEPROM power SW	O	H
27	E_SCL	IIC clock output for EEPROM	O	
28	E_SDA	IIC data I/O for EEPROM	I/O	
29	TXD	Communication with flash ROM writer - data transmission	O	
30	RXD	Communication with flash ROM writer - data receive	I	
31	SCLK	Communication with flash ROM writer - clock input	I	
32	BUSY	Communication with flash ROM writer - busy output	O	
33	TXD0	UART communication with main UCOM (external PC) - data transmission	O	
34	RXD0	UART communication with main UCOM (external PC) - data receive	I	
35	NC	NC pin		
36	REQ_MD	Communication request to the main UCOM	O	H
37	PSW_D	Mute of DC-DC converter	O	H
38	WE_IC4	In IC4 (MANTA) rewriting, control for communication path switch	O	H
39	EPM	Setting pin for flash rewriting mode (pull-down)	I	
40	IC4_RST	IC4 forced reset	O	L
41	IC4_CE	Enable for IC4 communication	O	L
42	IC4_BUSY	Busy input for IC4 communication	I	H
43	REQ_IC4	Communication request from the IC4	I	H
44	CE	Setting pin for flash rewriting mode (pull-up)	I	
45	PSIZE	Panel size distinction	I	
46	B_SCL	IIC clock output for backup EEPROM	O	H
47	B_SDA	IIC DATA I/O for backup EEPROM	I/O	H
48	ADR_PD	PD signal of address junction	I	H
49	LED_G	Green LED control	O	L
50	LED_R	Red LED control	O	L

No.	Pin Name	Function	I/0	ACTIVE
51	DRV_OFF	Driving OFF	O	H
52	RELAY	Power ON control output	O	H
53	POWER	Power ON control input	I	H
54	MR_ST_B	MDR connection detection	I	L
55	OP_DET	Rear case open detection	I	
56	NC	NC pin		
57	PNL_MUTE	Panel mute	I	
58	DITHER	PC/VIDEO dither switch (panel module exclusive use)	I	
59	NC	NC pin		
60	VCC2	Power supply = STB 3.3V	–	–
61	PD_TRG	PD detection	I	L
62	VSS	GND	–	–
63	VH_PD	Vh power decrease PD	I	H
64	YDRV_PD	Y drive PD signal	I	H
65	YRES_PD	Y drive PD signal	I	H
66	YDCDC_PD	PD signal of Y drive DC-DC converter	I	H
67	IC5V_PD	5V power decrease PD	I	H
68	XSUS_PD	X drive PD signal	I	H
69	XDCDC_PD	PD signal of X drive DC-DC converter	I	H
70	XDRV_PD	X drive PD signal	I	H
71	NC	NC pin		
72	MR_AC	MR power monitor	I	H
73	AC_DET	AC power monitor at panel side (same signal as CST1)	I	L
74	DVI_MUTE	Mute of panel link output	O	H
75	A_MUTE	Audio mute	O	H
76	A_NG	Audio NG detection	I	L
77	A_SCL	IIC clock output for audio/others	O	L
78	A_SDA	IIC data I/O for audio/others	I/O	L
79	TRUBASS	TRUBASS ON/OFF	O	H
80	STB_SW	Standby setting of audio amp.	O	L
81	FOCUS	FOCUS ON/OFF	O	H
82	SRS	SRS ON/OFF	O	H
83	DDC_WP	DDCROM write protection	O	H
84	DVI_DET	DVI cable disconnection detection	I	H
85	RSTBTMDS	Reset detection of panel link receiver	I	L
86	L_SYNC	DE omission detection of the panel link	I	L
87	NC	NC pin		
88	NC	NC pin		
89	MASK1	[A/D] Mask display setting	I	
90	MAX_PLS2	[A/D] Brightness setting for panel module	I	
91	MAX_PLS1	[A/D] Brightness setting for panel module	I	
92	TEMP	[A/D] AD input for temperature sensor	I	
93	MODE	[A/D] Operation mode setting	I	
94	AVSS	GND for A/D input	–	–
95	MODEL	[A/D] CMX/HD/TV/WX distinction	I	
96	VREF	Reference voltage for A/D input	–	–
97	AVCC	Power supply for A/D input = STB3.3V	–	–
98	NC	NC pin		
99	NC	NC pin		
100	AMG_MD	Address emergency monitor	I	H

PD5856A (DIGITAL VIDEO ASSY : IC5401)

• PDP ASIC IC4

● **Pin Function**

Ball No.	No.	Pin Name	Function
A1	1	BAI_6	A phase signal input of B video (sixth bit)
B1	2	BAI_5	A phase signal input of B video (fifth bit)
C1	3	BAI_4	A phase signal input of B video (fourth bit)
D1	4	NC	NC pin
E1	5	NC	NC pin
F1	6	BAI_3	A phase signal input of B video (fifth bit)
G1	7	BAI_2	A phase signal input of B video (fourth bit)
H1	8	FIELD	FIELD signal input
J1	9	XSUSB_12	X-Drive control signal output
K1	10	XSUSB_10	X-Drive control signal output
L1	11	XSUSB_4	X-Drive control signal output
M1	12	XSUSB_0	X-Drive control signal output
N1	13	XSUSA_10	X-Drive control signal output
P1	14	XSUSA_4	X-Drive control signal output
R1	15	XSUSA_2	X-Drive control signal output
T1	16	ADRS_0	Address control signal output
U1	17	AD6TXOUT3M	Address LVDS signal output
V1	18	AD6TXCLKOUTM	Address LVDS signal output
W1	19	AD6TXOUT2M	Address LVDS signal output
Y1	20	AD6TXOUT1M	Address LVDS signal output
AA1	21	AD6TXOUT0M	Address LVDS signal output
AB1	22	AD7TXOUT3M	Address LVDS signal output
AC1	23	AD7TXCLKOUTM	Address LVDS signal output
AD1	24	AD7TXOUT2M	Address LVDS signal output
AE1	25	AD7TXOUT1M	Address LVDS signal output
AF1	26	AD7TXOUT0M	Address LVDS signal output
AF2	27	AD7TXOUT0P	Address LVDS signal output
AF3	28	VSSLA	GND
AF4	29	AD3TXOUT3M	Address LVDS signal output
AF5	30	AD3TXCLKOUTM	Address LVDS signal output
AF6	31	AD3TXOUT2M	Address LVDS signal output
AF7	32	AD3TXOUT1M	Address LVDS signal output
AF8	33	AD3TXOUT0M	Address LVDS signal output
AF9	34	AD2TXOUT3M	Address LVDS signal output
AF10	35	AD2TXCLKOUTM	Address LVDS signal output
AF11	36	AD2TXOUT2M	Address LVDS signal output
AF12	37	AD2TXOUT1M	Address LVDS signal output
AF13	38	AD2TXOUT0M	Address LVDS signal output
AF14	39	AD1TXOUT3M	Address LVDS signal output
AF15	40	AD1TXCLKOUTM	Address LVDS signal output
AF16	41	AD1TXOUT2M	Address LVDS signal output
AF17	42	AD1TXOUT1M	Address LVDS signal output
AF18	43	AD1TXOUT0M	Address LVDS signal output
AF19	44	AD0TXOUT3M	Address LVDS signal output
AF20	45	AD0TXCLKOUTM	Address LVDS signal output
AF21	46	AD0TXOUT2M	Address LVDS signal output
AF22	47	AD0TXOUT1M	Address LVDS signal output
AF23	48	AD0TXOUT0M	Address LVDS signal output
AF24	49	VSSL15	GND
AF25	50	AD4TXOUT3P	Address LVDS signal output

Ball No.	No.	Pin Name	Function
AF26	51	AD4TXOUT3M	Address LVDS signal output
AE26	52	AD4TXCLKOUTM	Address LVDS signal output
AD26	53	AD4TXOUT2M	Address LVDS signal output
AC26	54	AD4TXOUT1M	Address LVDS signal output
AB26	55	AD4TXOUT0M	Address LVDS signal output
AA26	56	AD5TXOUT3M	Address LVDS signal output
Y26	57	AD5TXCLKOUTM	Address LVDS signal output
W26	58	AD5TXOUT2M	Address LVDS signal output
V26	59	AD5TXOUT1M	Address LVDS signal output
U26	60	AD5TXOUT0M	Address LVDS signal output
T26	61	SDIDBI_N	JTAG signal
R26	62	SDIJTAG	JTAG signal
P26	63	GPIO0_3	Microcomputer macro general-purpose port
N26	64	GPIO0_1	Microcomputer macro general-purpose port
M26	65	YSUSA_4	Y-Drive control signal output
L26	66	YSUSA_10	Y-Drive control signal output
K26	67	YSUSA_14	Y-Drive control signal output
J26	68	YSUSB_4	Y-Drive control signal output
H26	69	YSUSB_6	Y-Drive control signal output
G26	70	YSUSB_10	Y-Drive control signal output
F26	71	YSUSB_14	Y-Drive control signal output
E26	72	NC	NC pin
D26	73	NC	NC pin
C26	74	SCAN_10	Scan control signal output
B26	75	CSIOTXD	Communication with microcomputer
A26	76	CSRD_N	Communication with microcomputer
A25	77	CSCS_N0	Communication with microcomputer
A24	78	EXA16	Flash memory address bus
A23	79	EXA15	Flash memory address bus
A22	80	EXA14	Flash memory address bus
A21	81	EXA13	Flash memory address bus
A20	82	EXA12	Flash memory address bus
A19	83	EXA10	Flash memory address bus
A18	84	EXA7	Flash memory address bus
A17	85	EXA1	Flash memory address bus
A16	86	EXDIO_3	Flash memory data bus
A15	87	EXDIO_5	Flash memory data bus
A14	88	EXDIO_11	Flash memory data bus
A13	89	TRNSEND_O	NC pin
A12	90	RBI_5	B phase signal input of R video (fifth bit)
A11	91	RBI_0	B phase signal input of R video (0 bit)
A10	92	GBI_8	B phase signal input of G video (eighth bit)
A9	93	GBI_2	B phase signal input of G video (second bit)
A8	94	BBI_6	B phase signal input of B video (sixth bit)
A7	95	BBI_0	B phase signal input of B video (0 bit)
A6	96	VDI	VD signal input
A5	97	RAI_5	A phase signal input of R video (fifth bit)
A4	98	DCLKI	CLK input
A3	99	GAI_4	A phase signal input of G video (fourth bit)
A2	100	BAI_9	A phase signal input of B video (ninth bit)

Ball No.	No.	Pin Name	Function
B2	101	BAI_8	A phase signal input of B video (eighth bit)
C2	102	BAI_7	A phase signal input of B video (seventh bit)
D2	103	GND	GND
E2	104	NC	NC
F2	105	NC	NC
G2	106	BAI_1	A phase signal input of B video (first bit)
H2	107	XSUSB_15	X-Drive control signal output
J2	108	GND	GND
K2	109	XSUSB_9	X-Drive control signal output
L2	110	XSUSB_3	X-Drive control signal output
M2	111	XSUSA_15	X-Drive control signal output
N2	112	XSUSA_9	X-Drive control signal output
P2	113	GND	GND
R2	114	XSUSA_1	X-Drive control signal output
T2	115	TEST2	Test signal input (Not used)
U2	116	AD6TXOUT3P	Address LVDS signal output
V2	117	AD6TXCLKOUTP	Address LVDS signal output
W2	118	AD6TXOUT2P	Address LVDS signal output
Y2	119	AD6TXOUT1P	Address LVDS signal output
AA2	120	AD6TXOUT0P	Address LVDS signal output
AB2	121	AD7TXOUT3P	Address LVDS signal output
AC2	122	AD7TXCLKOUTP	Address LVDS signal output
AD2	123	AD7TXOUT2P	Address LVDS signal output
AE2	124	AD7TXOUT1P	Address LVDS signal output
AE3	125	VSSLA	GND
AE4	126	AD3TXOUT3P	Address LVDS signal output
AE5	127	AD3TXCLKOUTP	Address LVDS signal output
AE6	128	AD3TXOUT2P	Address LVDS signal output
AE7	129	AD3TXOUT1P	Address LVDS signal output
AE8	130	AD3TXOUT0P	Address LVDS signal output
AE9	131	AD2TXOUT3P	Address LVDS signal output
AE10	132	AD2TXCLKOUTP	Address LVDS signal output
AE11	133	AD2TXOUT2P	Address LVDS signal output
AE12	134	AD2TXOUT1P	Address LVDS signal output
AE13	135	AD2TXOUT0P	Address LVDS signal output
AE14	136	AD1TXOUT3P	Address LVDS signal output
AE15	137	AD1TXCLKOUTP	Address LVDS signal output
AE16	138	AD1TXOUT2P	Address LVDS signal output
AE17	139	AD1TXOUT1P	Address LVDS signal output
AE18	140	AD1TXOUT0P	Address LVDS signal output
AE19	141	AD0TXOUT3P	Address LVDS signal output
AE20	142	AD0TXCLKOUTP	Address LVDS signal output
AE21	143	AD0TXOUT2P	Address LVDS signal output
AE22	144	AD0TXOUT1P	Address LVDS signal output
AE23	145	AD0TXOUT0P	Address LVDS signal output
AE24	146	VSSL15	GND
AE25	147	AD4TXCLKOUTP	Address LVDS signal output
AD25	148	AD4TXOUT2P	Address LVDS signal output
AC25	149	AD4TXOUT1P	Address LVDS signal output
AB25	150	AD4TXOUT0P	Address LVDS signal output

Ball No.	No.	Pin Name	Function
AA25	151	AD5TXOUT3P	Address LVDS signal output
Y25	152	AD5TXCLKOUTP	Address LVDS signal output
W25	153	AD5TXOUT2P	Address LVDS signal output
V25	154	AD5TXOUT1P	Address LVDS signal output
U25	155	AD5TXOUT0P	Address LVDS signal output
T25	156	SDITRST_N	JTAG signal
R25	157	RESETX	Reset input
P25	158	GND	GND
N25	159	GPIO0_0	Microcomputer macro general-purpose port
M25	160	YSUSA_5	Y-Drive control signal output
L25	161	YSUSA_11	Y-Drive control signal output
K25	162	YSUSA_15	Y-Drive control signal output
J25	163	GND	GND
H25	164	YSUSB_7	Y-Drive control signal output
G25	165	YSUSB_11	Y-Drive control signal output
F25	166	NC	NC pin
E25	167	NC	NC pin
D25	168	GND	GND
C25	169	SCAN_11	Scan control signal output
B25	170	CSIORXD	Communication with UCOM
B24	171	CSIOSCKI	Communication with UCOM
B23	172	UARTTXD	Communication with UCOM
B22	173	UARTRXD	Communication with UCOM
B21	174	CSWR_N0	Communication with UCOM
B20	175	GND	GND
B19	176	EXA9	Flash memory address bus
B18	177	EXA6	Flash memory address bus
B17	178	EXA0	Flash memory address bus
B16	179	GND	GND
B15	180	EXDIO_6	Flash memory data bus
B14	181	EXDIO_12	Flash memory data bus
B13	182	RBI_9	B phase signal input of R video (ninth bit)
B12	183	RBI_4	B phase signal input of R video (fourth bit)
B11	184	GND	GND
B10	185	GBI_7	B phase signal input of G video (seventh bit)
B9	186	GBI_1	B phase signal input of G video (first bit)
B8	187	BBI_5	B phase signal input of B video (fifth bit)
B7	188	GND	GND
B6	189	HDI	HD signal input
B5	190	RAI_4	A phase signal input of R video (fourth bit)
B4	191	GAI_9	A phase signal input of G video (ninth bit)
B3	192	GAI_3	A phase signal input of G video (third bit)
C3	193	GAI_2	A phase signal input of G video (second bit)
D3	194	VDDD33	3.3V power supply
E3	195	GAI_1	A phase signal input of G video (first bit)
F3	196	GAI_0	A phase signal input of G video (0 bit)
G3	197	NC	NC pin
H3	198	XSUSB_14	X-Drive control signal output
J3	199	VDDIO	3.3V power supply
K3	200	XSUSB_8	X-Drive control signal output

Ball No.	No.	Pin Name	Function
L3	201	XSUSB_2	X-Drive control signal output
M3	202	XSUSA_14	X-Drive control signal output
N3	203	XSUSA_8	X-Drive control signal output
P3	204	VDDIO	3.3V power supply
R3	205	XSUSA_0	X-Drive control signal output
T3	206	TEST1	Test signal input (Not used)
U3	207	VSSLA	GND
V3	208	VSSLA	GND
W3	209	VSSLA	GND
Y3	210	VSSLA	GND
AA3	211	VSSLA	GND
AB3	212	VSSLA	GND
AC3	213	VSSLA	GND
AD3	214	VSSLA	GND
AD4	215	VSSLA	GND
AD5	216	VSSLA	GND
AD6	217	VSSLA	GND
AD7	218	VSSLA	GND
AD8	219	VSSLA	GND
AD9	220	VSSLA	GND
AD10	221	VSSLA	GND
AD11	222	VSSLA	GND
AD12	223	VSSLA	GND
AD13	224	VSSLA	GND
AD14	225	VSSLA	GND
AD15	226	VSSLA	GND
AD16	227	VSSLA	GND
AD17	228	VSSLA	GND
AD18	229	VSSLA	GND
AD19	230	VSSLA	GND
AD20	231	VSSLA	GND
AD21	232	VSSLA	GND
AD22	233	VSSLA	GND
AD23	234	VSSLA	GND
AD24	235	VSSLA	GND
AC24	236	VSSLA	GND
AB24	237	VSSLA	GND
AA24	238	VSSLA	GND
Y24	239	VSSLA	GND
W24	240	VSSLA	GND
V24	241	VSSLA	GND
U24	242	VSSLA	GND
T24	243	SDITDO	JTAG signal
R24	244	GPIO0_7	Microcomputer macro general-purpose port
P24	245	VDDIO	3.3V power supply
N24	246	YSUSA_0	Y-Drive control signal output
M24	247	YSUSA_6	Y-Drive control signal output
L24	248	YSUSA_12	Y-Drive control signal output
K24	249	YSUSB_0	Y-Drive control signal output
J24	250	VDDD33	3.3V power supply

Ball No.	No.	Pin Name	Function
H24	251	YSUSB_8	Y-Drive control signal output
G24	252	NC	NC pin
F24	253	YSUSB_15	Y-Drive control signal output
E24	254	SCAN_3	Scan control signal output
D24	255	VDDD33	3.3V power supply
C24	256	SCAN_12	Scan control signal output
C23	257	SCAN_13	Scan control signal output
C22	258	SCAN_14	Scan control signal output
C21	259	SCAN_15	Scan control signal output
C20	260	VDDIO	3.3V power supply
C19	261	EXA8	Flash memory address bus
C18	262	EXA5	Flash memory address bus
C17	263	CLKD	CLK input (60MHz)
C16	264	VDDIO	3.3V power supply
C15	265	EXDIO_7	Flash memory data bus
C14	266	EXDIO_13	Flash memory data bus
C13	267	RBI_8	B phase signal input of R video (eighth bit)
C12	268	RBI_3	B phase signal input of R video (third bit)
C11	269	VDDIO	3.3V power supply
C10	270	GBI_6	B phase signal input of G video (sixth bit)
C9	271	GBI_0	B phase signal input of G video (0 bit)
C8	272	BBI_4	B phase signal input of B video (fourth bit)
C7	273	VDDIO	3.3V power supply
C6	274	RAI_9	A phase signal input of R video (ninth bit)
C5	275	RAI_3	A phase signal input of R video (third bit)
C4	276	GAI_8	A phase signal input of G video (eighth bit)
D4	277	GAI_7	A phase signal input of G video (seventh bit)
E4	278	GAI_6	A phase signal input of G video (sixth bit)
F4	279	GAI_5	A phase signal input of G video (fifth bit)
G4	280	VCMP	GND
H4	281	XSUSB_13	X-Drive control signal output
J4	282	XSUSB_11	X-Drive control signal output
K4	283	XSUSB_7	X-Drive control signal output
L4	284	XSUSB_1	X-Drive control signal output
M4	285	XSUSA_13	X-Drive control signal output
N4	286	XSUSA_7	X-Drive control signal output
P4	287	XSUSA_3	X-Drive control signal output
R4	288	ADRS_3	Address control signal output
T4	289	TESTAN	Test signal input (Not used)
U4	290	VDDLA	3.3V power supply
V4	291	VDDLA	3.3V power supply
W4	292	VDDLA	3.3V power supply
Y4	293	VDDLA	3.3V power supply
AA4	294	VDDLA	3.3V power supply
AB4	295	VDDLA	3.3V power supply
AC4	296	VDDLA	3.3V power supply
AC5	297	VDDLA	3.3V power supply
AC6	298	VDDLA	3.3V power supply
AC7	299	VDDLA	3.3V power supply
AC8	300	VDDLA	3.3V power supply

Ball No.	No.	Pin Name	Function
AC8	300	VDDLA	3.3V power supply
AC9	301	VDDLA	3.3V power supply
AC10	302	VDDLA	3.3V power supply
AC11	303	VDDLA	3.3V power supply
AC12	304	VDDLA	3.3V power supply
AC13	305	VDDLA	3.3V power supply
AC14	306	VDDBG	3.3V power supply
AC15	307	VDDLA	3.3V power supply
AC16	308	VDDLA	3.3V power supply
AC17	309	VDDLA	3.3V power supply
AC18	310	VDDLA	3.3V power supply
AC19	311	VDDLA	3.3V power supply
AC20	312	VDDLA	3.3V power supply
AC21	313	VDDLA	3.3V power supply
AC22	314	VDDLA	3.3V power supply
AC23	315	VDDLA	3.3V power supply
AB23	316	VDDLA	3.3V power supplyv
AA23	317	VDDLA	3.3V power supply
Y23	318	VDDLA	3.3V power supply
W23	319	VDDLA	3.3V power supply
V23	320	VDDLA	3.3V power supply
U23	321	VDDLA	3.3V power supply
T23	322	SDITDI	JTAG signal
R23	323	GPIO0_6	Microcomputer macro general-purpose port
P23	324	GPIO0_2	Microcomputer macro general-purpose port
N23	325	YSUSA_1	Y-Drive control signal output
M23	326	YSUSA_7	Y-Drive control signal output
L23	327	YSUSA_13	Y-Drive control signal output
K23	328	YSUSB_1	Y-Drive control signal output
J23	329	YSUSB_5	Y-Drive control signal output
H23	330	YSUSB_9	Y-Drive control signal output
G23	331	VCMP	GND
F23	332	SCAN_0	Scan control signal output
E23	333	SCAN_4	Scan control signal output
D23	334	SCAN_7	Scan control signal output
D22	335	SCAN_8	Scan control signal output
D21	336	SCAN_9	Scan control signal output
D20	337	EXA11	Flash memory address bus
D19	338	EXA19	Flash memory address bus
D18	339	EXA4	Flash memory address bus
D17	340	EXDIO_0	Flash memory data bus
D16	341	EXDIO_4	Flash memory data bus
D15	342	EXDIO_8	Flash memory data bus
D14	343	EXDIO_14	Flash memory data bus
D13	344	RBI_7	B phase signal input of R video (seventh bit)
D12	345	RBI_2	B phase signal input of R video (second bit)
D11	346	GBI_9	B phase signal input of G video (ninth bit)
D10	347	GBI_5	B phase signal input of G video (fifth bit)
D9	348	BBI_9	B phase signal input of B video (ninth bit)
D8	349	BBI_3	B phase signal input of B video (tenth bit)

Ball No.	No.	Pin Name	Function
D7	350	DEI	DE signal input
D6	351	RAI_8	A phase signal input of R video (eighth bit)
D5	352	RAI_2	A phase signal input of R video (second bit)
E5	353	RAI_1	A phase signal input of R video (first bit)
F5	354	RAI_0	A phase signal input of R video (0 bit)
G5	355	BAI_0	A phase signal input of B video (0 bit)
H5	356	VSS15	GND
J5	357	VDDHR	3.3V power supply
K5	358	XSUSB_6	X-Drive control signal output
L5	359	VSSD15	GND
M5	360	XSUSA_12	X-Drive control signal output
N5	361	XSUSA_6	X-Drive control signal output
P5	362	VSS15	GND
R5	363	ADRS_2	Address control signal output
T5	364	TESTBN	Test signal input (Not used)
U5	365	VSSL15	GND
V5	366	VSSLA	GND
W5	367	VSSLA	GND
Y5	368	VSSL15	GND
AA5	369	VDDLP	3.3V power supply
AB5	370	VSSL15	GND
AB6	371	VSSLA	GND
AB7	372	VSSLA	GND
AB8	373	VSSL15	GND
AB9	374	VSSLA	GND
AB10	375	VSSLA	GND
AB11	376	VSSL15	GND
AB12	377	VSSLA	GND
AB13	378	VSSLA	GND
AB14	379	REFRIN	Reference current generation
AB15	380	VSSBG	GND
AB16	381	VSSL15	GND
AB17	382	VSSLA	GND
AB18	383	VSSLA	GND
AB19	384	VSSL15	GND
AB20	385	VSSLA	GND
AB21	386	VSSLA	GND
AB22	387	VSSLA	GND
AA22	388	VDDLA	3.3V power supply
Y22	389	VSSL15	GND
W22	390	VSSLA	GND
V22	391	VSSLA	GND
U22	392	VSSL15	GND
T22	393	SDITMS	JTAG signal
R22	394	GPIO0_5	Microcomputer macro general-purpose port
P22	395	VSS15	GND
N22	396	YSUSA_2	Y-Drive control signal output
M22	397	YSUSA_8	Y-Drive control signal output
L22	398	VSSD15	GND
K22	399	YSUSB_2	Y-Drive control signal output

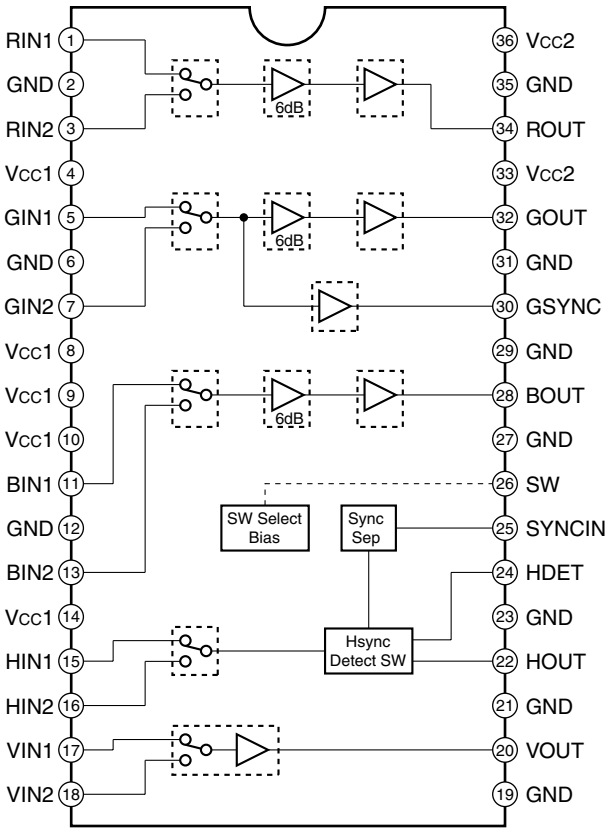
Ball No.	No.	Pin Name	Function
J22	400	VDDHL	3.3V power supply
H22	401	VSSD15	GND
G22	402	YSUSB_12	Y-Drive control signal output
F22	403	SCAN_1	Scan control signal output
E22	404	SCAN_5	Scan control signal output
E21	405	SCAN_6	Scan control signal output
E20	406	VSS15	GND
E19	407	EXA18	Flash memory address bus
E18	408	EXA3	Flash memory address bus
E17	409	EXDIO_1	Flash memory data bus
E16	410	VSS15	GND
E15	411	EXDIO_9	Flash memory data bus
E14	412	EXDIO_15	Flash memory data bus
E13	413	RBI_6	B phase signal input of R video (sixth bit)
E12	414	CLKS	CLK input (85MHz)
E11	415	VSS15	GND
E10	416	GBI_4	B phase signal input of G video (fourth bit)
E8	418	BBI_2	B phase signal input of B video (second bit)
E9	417	BBI_8	B phase signal input of B video (eighth bit)
E7	419	VSS15	GND
E6	420	RAI_7	A phase signal input of R video (seventh bit)
F6	421	RAI_6	A phase signal input of R video (sixth bit)
G6	422	APL_DT	APL value trigger input
H6	423	VDD15	1.5V power supply
J6	424	VBB	VBB power monitor in the DRAM
K6	425	XSUSB_5	X-Drive control signal output
L6	426	VDDD15	1.5V power supply
M6	427	XSUSA_11	X-Drive control signal output
N6	428	XSUSA_5	X-Drive control signal output
P6	429	VDD15	1.5V power supply
R6	430	ADRS_1	Address control signal output
T6	431	TESTCN	Test signal input (Not used)
U6	432	VDDL15	1.5V power supply
V6	433	VDDLA	3.3V power supply
W6	434	VDDLA	3.3V power supply
Y6	435	VDDL15	1.5V power supply
AA6	436	VDDLA	3.3V power supply
AA7	437	VDDLA	3.3V power supply
AA8	438	VDDL15	1.5V power supply
AA9	439	VDDLA	3.3V power supply
AA10	440	VDDLA	3.3V power supply
AA11	441	VDDL15	1.5V power supply
AA12	442	VDDLA	3.3V power supply
AA13	443	VDDLA	3.3V power supply
AA14	444	VDDLA	3.3V power supply
AA15	445	VDDLA	3.3V power supply
AA16	446	VDDL15	1.5V power supply
AA17	447	VDDLA	3.3V power supply
AA18	448	VDDLA	3.3V power supply
AA19	449	VDDL15	1.5V power supply

Ball No.	No.	Pin Name	Function
AA20	450	VDDLA	3.3V power supply
AA21	451	VDDLA	3.3V power supply
Y21	452	VDDL15	1.5V power supply
W21	453	VDDLA	3.3V power supply
V21	454	VDDLA	3.3V power supply
U21	455	VDDL15	1.5V power supply
T21	456	SDITCK	JTAG signal
R21	457	GPIO0_4	Microcomputer macro general-purpose port
P21	458	VDD15	1.5V power supply
N21	459	YSUSA_3	Y-Drive control signal output
M21	460	YSUSA_9	Y-Drive control signal output
L21	461	VDDD15	1.5V power supply
K21	462	YSUSB_3	Y-Drive control signal output
J21	463	VBB	VBB power monitor in the DRAM
H21	464	VDDD15	1.5V power supply
G21	465	YSUSB_13	Y-Drive control signal output
F21	466	SCAN_2	Scan control signal output
F20	467	VDD15	1.5V power supply
F19	468	EXA17	Flash memory address bus
F18	469	EXA2	Flash memory address bus
F17	470	EXDIO_2	Flash memory data bus
F16	471	VDD15	1.5V power supply
F15	472	EXDIO_10	Flash memory data bus
F14	473	TRNSEND_I	NC pin
F13	474	VDD15	1.5V power supply
F12	475	RBI_1	B phase signal input of R video (first bit)
F11	476	VDD15	1.5V power supply
F10	477	GBI_3	B phase signal input of G video (third bit)
F9	478	BBI_7	B phase signal input of B video (seventh bit)
F8	479	BBI_1	B phase signal input of B video (first bit)
F7	480	VDD15	1.5V power supply

■ AN5870SB (RGB ASSY : IC6402) (AV I/O ASSY : IC7610, IC7613) (VIDEO SLOT 2 ASSY : IC7902)

• Wide Band Analog SW

● Pin Arrangement / Block Diagram



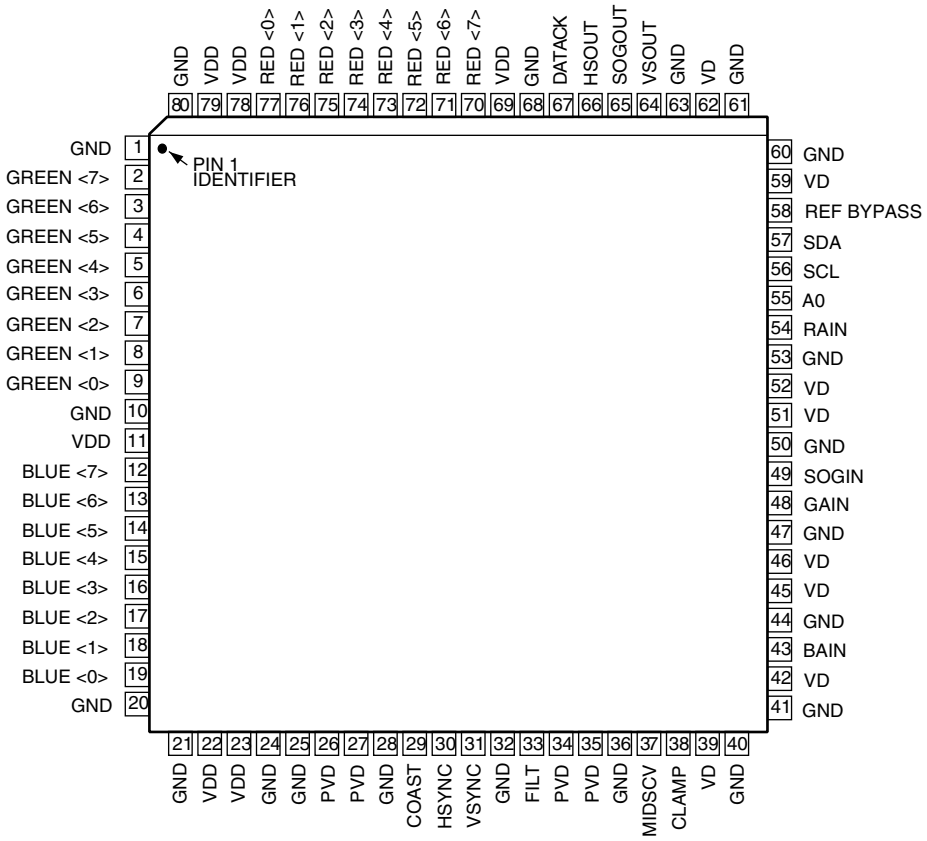
● Pin Function

No.	Name	Function	No.	Name	Function
1	RIN1	R input 1	19	GND	Ground (HV, HSEP, SW)
2	GND	Ground (R)	20	VOUT	V output
3	RIN2	R input 2	21	GND	Ground
4	Vcc1	5V (GSYNC)	22	HOUT	H output
5	GIN1	G input 1	23	GND	Ground
6	GND	Ground (G)	24	HDET	H detect
7	GIN2	G input 2	25	SYNCIN	Sync input
8	Vcc1	5V (R)	26	SW	SW
9	Vcc1	5V (G)	27	GND	Ground
10	Vcc1	5V (B)	28	BOUT	B output
11	BIN1	B input 1	29	GND	Ground (RGB)
12	GND	Ground (B)	30	GSYNC	GSync output
13	BIN2	B input 2	31	GND	Ground (RGB)
14	Vcc1	5V (HV, HSEP, SW)	32	GOUT	G output
15	HIN1	H input 1	33	Vcc2	12V (RGB)
16	HIN2	H input 2	34	ROUT	R output
17	VIN1	V input 1	35	GND	Ground
18	VIN2	V input 2	36	Vcc2	12V (RGB)

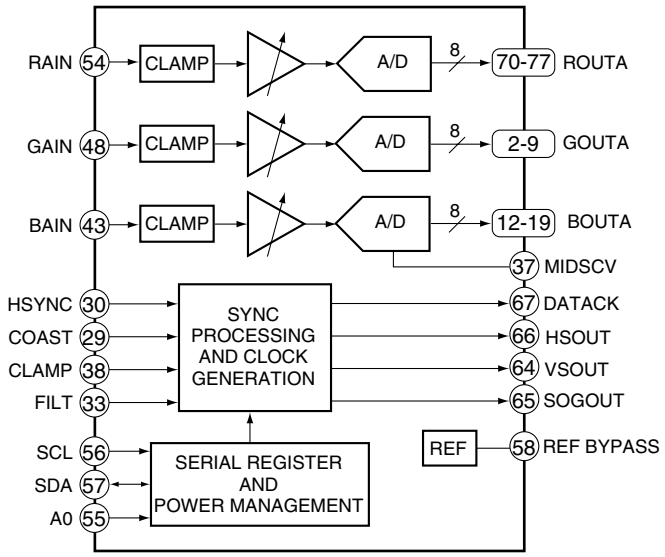
AD9883AKST-110 (RGB ASSY : IC6602)

• 110 MSPS Analog Interface

● Pin Arrangement (Top View)



● Block Diagram



● **Pin Function**

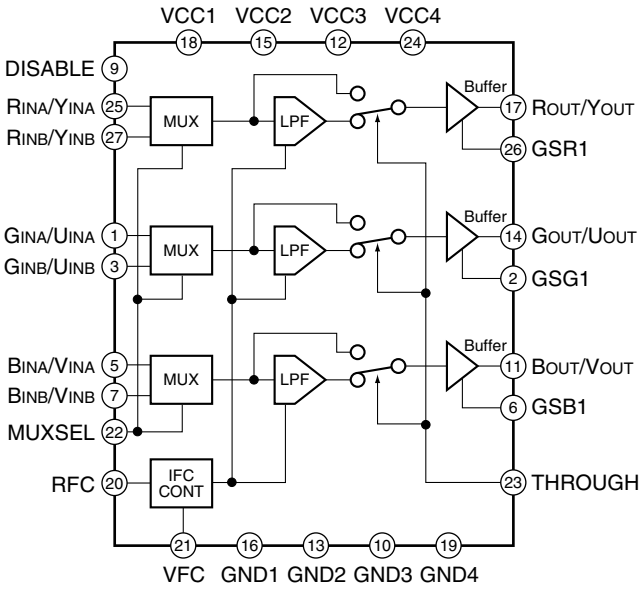
No.	Pin Name	I/O	Pin Function
1	GND	–	Ground
2	GREEN 7	O	Converter Green output (MSB)
3	GREEN 6	O	Converter Green output
4	GREEN 5	O	Converter Green output
5	GREEN 4	O	Converter Green output
6	GREEN 3	O	Converter Green output
7	GREEN 2	O	Converter Green output
8	GREEN 1	O	Converter Green output
9	GREEN 0	O	Converter Green output
10	GND	–	Ground
11	VDD	–	Power supply (3.3V)
12	BLUE 7	O	Converter Blue output (MSB)
13	BLUE 6	O	Converter Blue output
14	BLUE 5	O	Converter Blue output
15	BLUE 4	O	Converter Blue output
16	BLUE 3	O	Converter Blue output
17	BLUE 2	O	Converter Blue output
18	BLUE 1	O	Converter Blue output
19	BLUE 0	O	Converter Blue output
20	GND	–	Ground
21	GND	–	Ground
22	VDD	–	Power supply (3.3V)
23	VDD	–	Power supply (3.3V)
24	GND	–	Ground
25	GND	–	Ground
26	PVD	–	PLL power supply (3.3V)
27	PVD	–	PLL power supply (3.3V)
28	GND	–	Ground
29	COAST	I	PLL COAST signal input
30	HSYNC	I	Horizontal sync. input
31	VSYNC	I	Vertical sync. input
32	GND	–	Ground
33	FILT	–	External filter connection pin for built-in PLL
34	PVD	–	PLL power supply (3.3V)
35	PVD	–	PLL power supply (3.3V)
36	GND	–	Ground
37	MIDSCV	–	Internal middle scale voltage bias
38	CLAMP	I	Clamp input (External clamp signal)
39	VD	–	Analog power supply (3.3V)
40	GND	–	Ground
41	GND	–	Ground
42	VD	–	Analog power supply (3.3V)
43	BAIN	I	Analog input for converter B
44	GND	–	Ground
45	VD	–	Analog power supply (3.3V)

No.	Pin Name	I/O	Pin Function
46	VD	–	Analog power supply (3.3V)
47	GND	–	Ground
48	GAIN	I	Analog input for converter G
49	SOGIN	I	Input for Sync-on Green
50	GND	–	Ground
51	VD	–	Analog power supply (3.3V)
52	VD	–	Analog power supply (3.3V)
53	GND	–	Ground
54	RAIN	I	Analog input for converter R
55	A0	I	Address input 1 of serial port
56	SCL	I	Data clock (max. 100kHz) of serial port
57	SDA	I/O	Data input/output of serial port
58	REF BYPASS	–	Internal reference bypass
59	VD	–	Analog power supply (3.3V)
60	GND	–	Ground
61	GND	–	Ground
62	VD	–	Analog power supply (3.3V)
63	GND	–	Ground
64	VSOUT	O	VSYNC output (phasing with DATACLK)
65	SOGOUT	O	Sync-on-Green slicer output
66	HSOUT	O	HSYNC output (phasing with DATACLK)
67	DATACLK	O	Data input/output clock
68	GND	–	Ground
69	VDD	–	Power supply (3.3V)
70	RED 7	O	Converter Red output (MSB)
71	RED 6	O	Converter Red output
72	RED 5	O	Converter Red output
73	RED 4	O	Converter Red output
74	RED 3	O	Converter Red output
75	RED 2	O	Converter Red output
76	RED 1	O	Converter Red output
77	RED 0	O	Converter Red output
78	VDD	–	Power supply (3.3V)
79	VDD	–	Power supply (3.3V)
80	GND	–	Ground

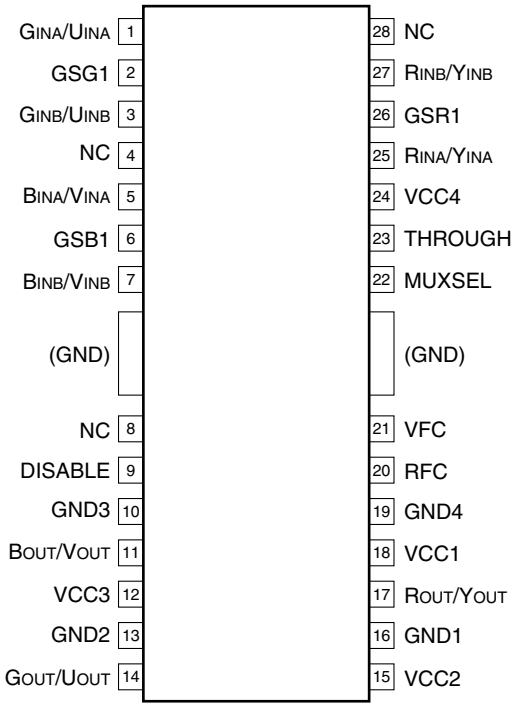
SM5301BS (RGB ASSY : IC6601)

• Video Filter

● Block Diagram



● Pin Arrangement (Top View)



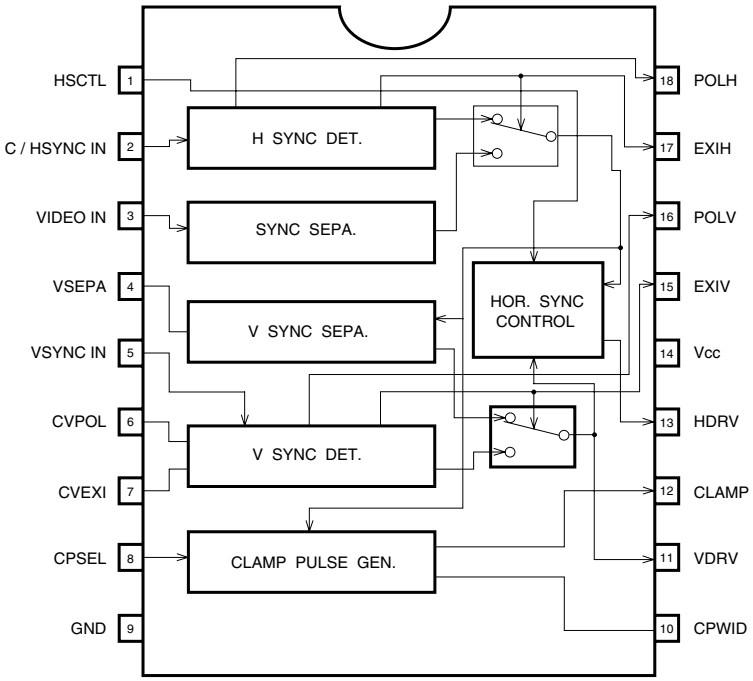
● Pin Function

No.	Pin Name	I/O	Pin Function
1	GINA/UINA	I	Analog GINA or UINA signal input. Sync signal is input on SYNCIN pin.
2	GSG1	I	GOUT/UOUT output buffer gain set input
3	GINB/UINB	I	Analog GINB or UINB signal input. Sync signal is input on SYNCIN pin.
4	(NC)	–	No connection
5	BINA/VINA	I	Analog BINA or VINA signal input. Sync signal is input on SYNCIN pin.
6	GSB1	I	BOUT/VOUT output buffer gain set input
7	BINB/VINB	I	Analog BINB or VINB signal input. Sync signal is input on SYNCIN pin.
8	(NC)	–	No connection
9	DISABLE	I	Power save function. Built-in pull-down resistor. L : Enable H : Disable (Output pins: ROUT/YOUT, GOUT/UOUT, and BOUT/VOUT are high impedance.)
10	GND3	–	Analog ground
11	BOUT/VOUT	O	B/V signal output
12	VCC3	–	Analog 5V supply
13	GND2	–	Analog ground
14	GOUT/UOUT	O	G/U signal output
15	VCC2	–	Analog 5V supply
16	GND1	–	Analog ground
17	ROUT/YOUT	O	R/Y signal output
18	VCC1	–	Analog 5V supply
19	GND4	–	Analog ground
20	RFC	–	LPF (lowpass filter) cutoff frequency setting resistor connection
21	VFC	I	LPF (lowpass filter) cutoff frequency setting voltage input
22	MUXSEL	I	Input select signal. Built-in pull-down resistor. L : XINA pin select H : XINB pin select
23	THROUGH	I	Filter through Built-in pull-down resistor. L : Filter function H : Filter through (buffer only)
24	VCC4	–	Analog 5V supply
25	RINA/YINA	I	Analog RINA or YINA signal input. Sync signal is input on SYNCIN pin.
26	GSR1	I	ROUT/YOUT output buffer gain set input
27	RINB/YINB	I	Analog RINB or YINB signal input. Sync signal is input on SYNCIN pin.
28	(NC)	–	No connection

■ BA7078AF (RGB ASSY : IC6604)

• Synchonous seperation IC

● Block Diagram



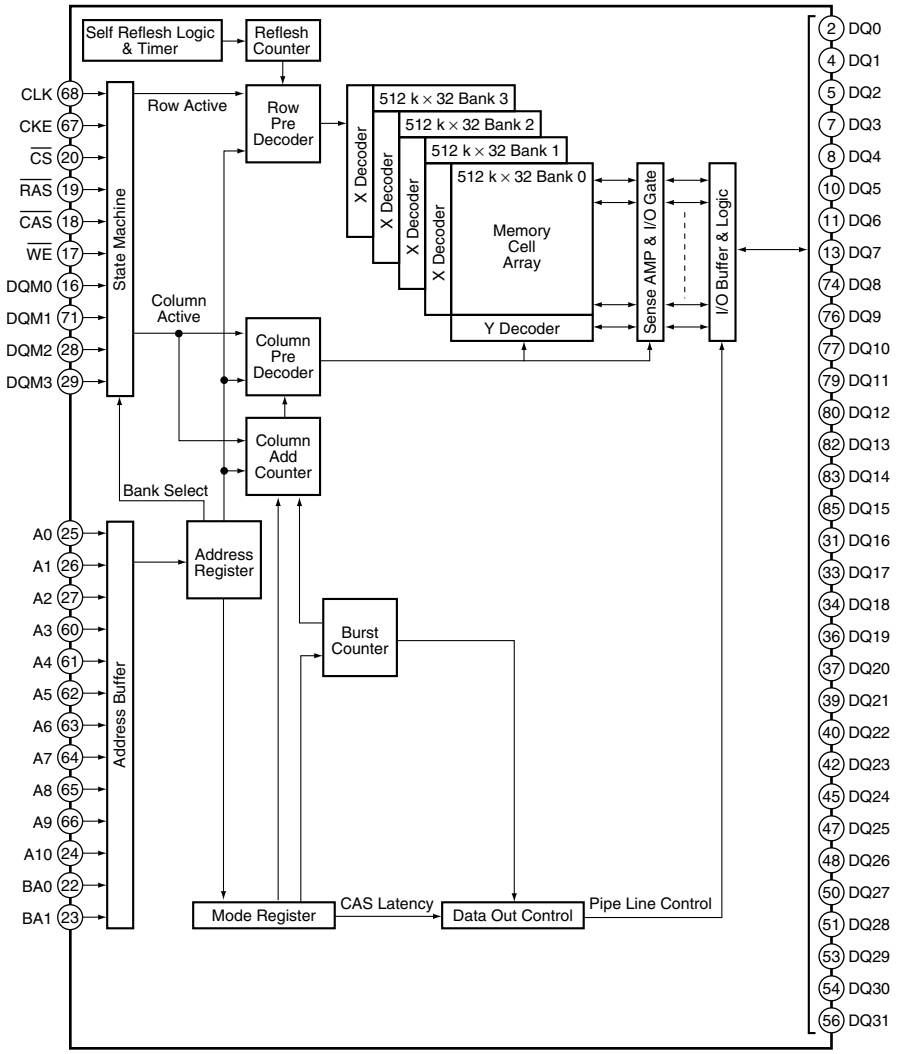
● Pin Function

No.	Pin Name	Pin Function
1	HSCTL	HDRV output Used to select whether to output the VDRV section of the HDRV output signal. High : VDRV section of HDRV is output Low : VDRV section of HDRV is not output
2	C/HSYNC IN	Composite sync / H SYNC input Input either the composite synchronization signal or the horizontal synchronization signal. Input is clamped, and is initiated by capacitor coupling.
3	VIDEO IN	SYNC ON VIDEO input Inputs the SYNC ON VIDEO signal(green). Input is sink chip clamped. Input is initiated by capacitor coupling.
4	VSEPA	f-V conversion Converts the horizontal synchronization signal frequency into a voltage. The voltage generated is proportional to the frequency of the horizontal synchronization signal. Attach a 0.56 μF capacitor between the ground pins.
5	VSYNC IN	V SYNC input Inputs the vertical synchronization signal.
6	CVPOL	Vertical polarity integration Integrates the vertical synchronization signal polarity detection circuit. Attach a 1.5 μF capacitor between this pin and the ground.
7	CVEXI	Vertical existence integration Integrates the vertical synchronization signal existence detection circuit. Attach a 1 μF capacitor between this pin and the ground.
8	CPSEL	Setting the clamp position Used to set the clamp pulse generation position to either the front or back edge of HSYNC High : The front edge is the generation position Open : Composite / H SYNC IN : The front edge is the generation position VIDEO IN : The back edge is the generation position Low : The back edge is the generation position
9	GND	Ground
10	CPWID	Setting the clamp pulse width Sets the clamp pulse width according to the attached time constant. Attach a resistor between this pin and VCC and, a capacitor between this pin and GND. When R = 3.9kΩ and C = 100pF, pulse width is approximately 400 ns. Set the resistor to register an abnormality at 1kΩ.
11	VDRV	VDRV output Outputs the vertical synchronization signal. The output signal has positive polarity.
12	CLAMP	Clamp output Outputs the clamp pulse generated from the vertical synchronization signal. The output signal has a positive polarity.
13	HDRV	HDRV output Outputs the clamp pulse generated from the horizontal synchronization signal. The output signal has positive polarity.
14	Vcc	Power supply
15	EXIV	Vertical existence output Indecates whether the vertical synchronization signal exists.
16	POLV	Vertical polarity output Indicates the polarity of the vertical synchronization signal.
17	EXIH	Horizontal existence output Indicates whether the horizontal synchronization signal exists.
18	POLH	Horizontal polarity output Indicates the polarity of the horizontal synchronization signal.

IC42S32200-7TG-K (RGB ASSY : IC7001, IC7002)

• Synchronous DRAM

● Block Diagram



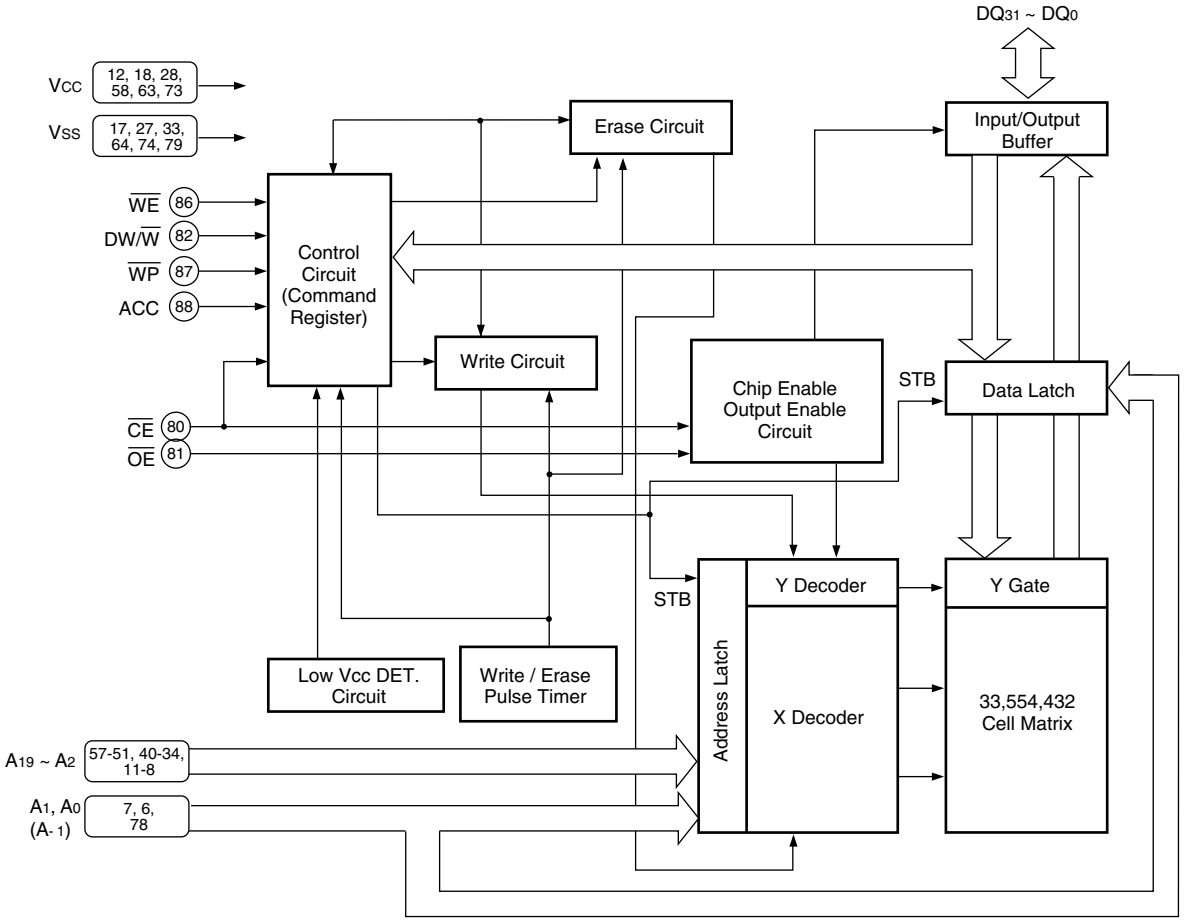
● Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	VDD	–	Power supply	44	VSS	–	Ground
2	DQ0	I/O	Data input/output	45	DQ24	I/O	Data input/output
3	VDDQ	–	Power supply for output buffer	46	VSSQ	–	Ground for output buffer
4	DQ1	I/O	Data input/output	47	DQ25	I/O	Data input/output
5	DQ2	I/O	Data input/output	48	DQ26	I/O	Data input/output
6	VSSQ	–	Ground for output buffer	49	VDDQ	–	Power supply for output buffer
7	DQ3	I/O	Data input/output	50	DQ27	I/O	Data input/output
8	DQ4	I/O	Data input/output	51	DQ28	I/O	Data input/output
9	VDDQ	–	Power supply for output buffer	52	VSSQ	–	Ground for output buffer
10	DQ5	I/O	Data input/output	53	DQ29	I/O	Data input/output
11	DQ6	I/O	Data input/output	54	DQ30	I/O	Data input/output
12	VSSQ	–	Ground for output buffer	55	VDDQ	–	Power supply for output buffer
13	DQ7	I/O	Data input/output	56	DQ31	I/O	Data input/output
14	NC	–	No connection	57	NC	–	No connection
15	VDD	–	Power supply	58	VSS	–	Ground
16	DQM0	I	Data input/output mask	59	DQM3	I	Data input/output mask
17	/WE	I	Write enable	60	A3	I	Address input
18	/CAS	I	Column address strobe	61	A4	I	Address input
19	/RAS	I	Row address strobe	62	A5	I	Address input
20	/CS	I	Chip select input	63	A6	I	Address input
21	NC	–	No connection	64	A7	I	Address input
22	BA0	I	Bank address input	65	A8	I	Address input
23	BA1	I	Bank address input	66	A9	I	Address input
24	A10/AP	I	Address input	67	CKE	I	Clock enable
25	A0	I	Address input	68	CLK	I	System clock input
26	A1	I	Address input	69	NC	–	No connection
27	A2	I	Address input	70	NC	–	No connection
28	DQM2	I	Data input/output mask	71	DQM1	I	Data input/output mask
29	VDD	–	Power supply	72	VSS	–	Ground
30	NC	–	No connection	73	NC	–	No connection
31	DQ16	I/O	Data input/output	74	DQ8	I/O	Data input/output
32	VSSQ	–	Ground for output buffer	75	VDDQ	–	Power supply for output buffer
33	DQ17	I/O	Data input/output	76	DQ9	I/O	Data input/output
34	DQ18	I/O	Data input/output	77	DQ10	I/O	Data input/output
35	VDDQ	–	Power supply for output buffer	78	VSSQ	–	Ground for output buffer
36	DQ19	I/O	Data input/output	79	DQ11	I/O	Data input/output
37	DQ20	I/O	Data input/output	80	DQ12	I/O	Data input/output
38	VSSQ	–	Ground for output buffer	81	VDDQ	–	Power supply for output buffer
39	DQ21	I/O	Data input/output	82	DQ13	I/O	Data input/output
40	DQ22	I/O	Data input/output	83	DQ14	I/O	Data input/output
41	VDDQ	–	Power supply for output buffer	84	VSSQ	–	Ground for output buffer
42	DQ23	I/O	Data input/output	85	DQ15	I/O	Data input/output
43	VDD	–	Power supply	86	VSS	–	Ground

■ MBM29PL3200BE70PFV (RGB ASSY : IC7152)

• Page Mode Flash Memory

● Block Diagram



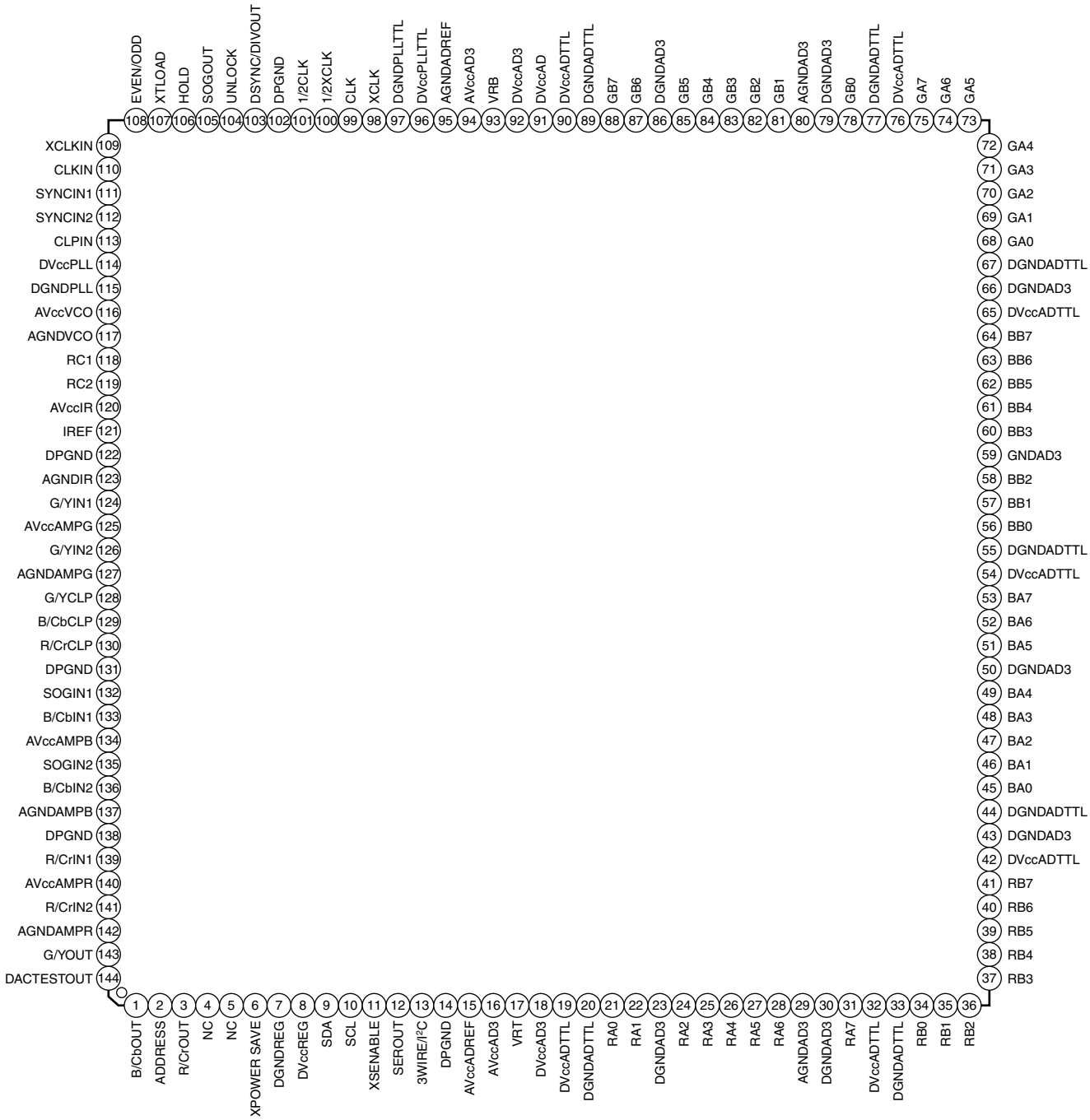
● Pin Function

No.	Pin Name	I/O	Pin Function
57-51, 40-34, 11-6, 78	A_{19} - A_0, A_{-1}	I	Address input
78-75, 72-65, 62-59, 32-19, 26-19, 16-13	DQ_{31} - DQ_0	I/O	Data input/output
80	CE	I	Chip enable
81	OE	I	Output enable
86	WE	I	Write enable
82	DW/W	I	16 bit, 32 bit mode switch
87	WP	I	Write protect
88	ACC	I	Acceleration
17, 27, 33, 64, 74, 79	V_{SS}	–	Ground
12, 18, 28, 58, 63, 73	V_{CC}	–	Power supply
1-5, 41-50, 83-85, 89, 90	N.C.	–	No connection

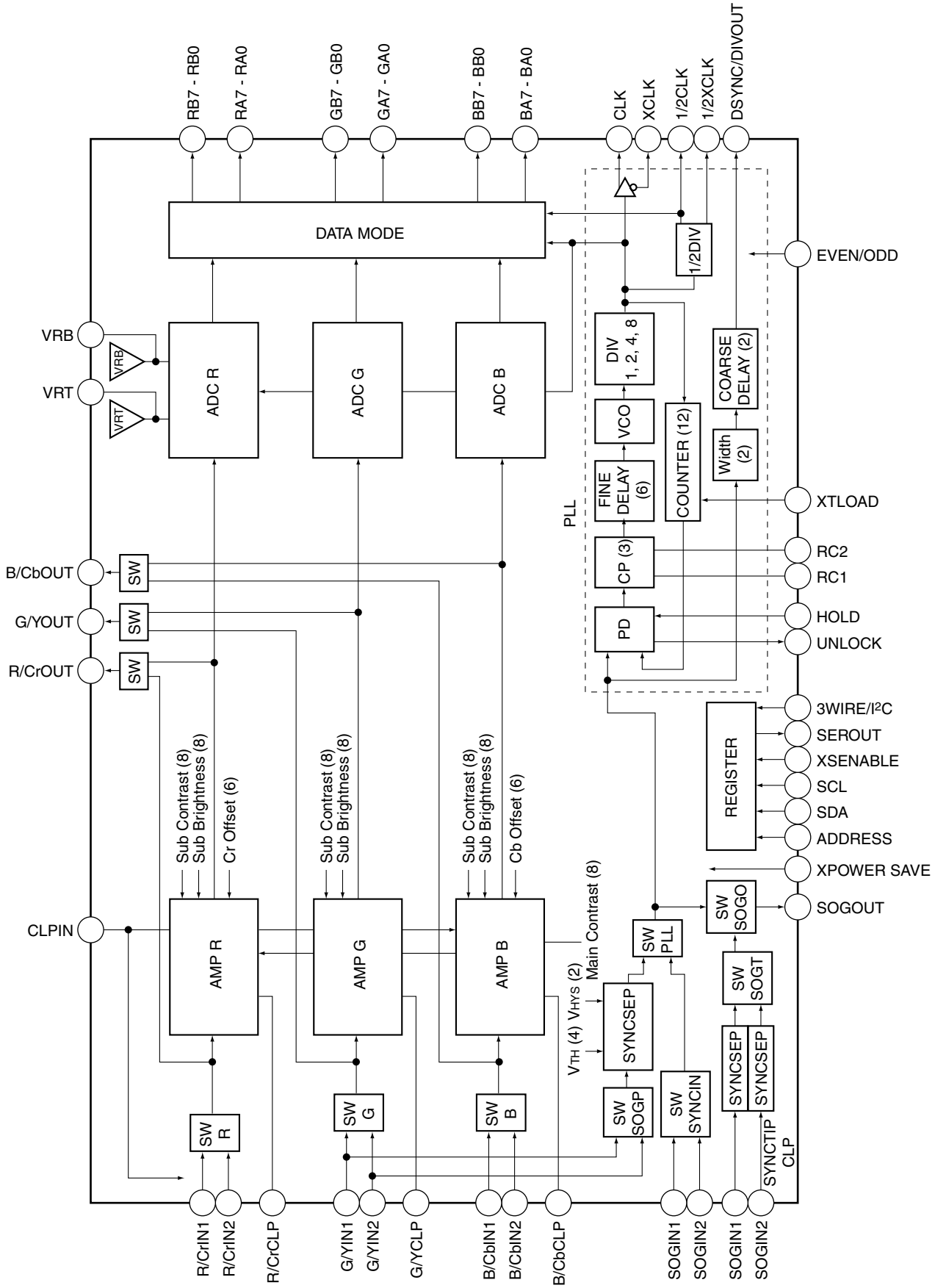
CXA3516R (RGB ASSY : IC6001)

• AD + PLL IC

● Pin Arrangement (Top View)



● Block Diagram



● Pin Function

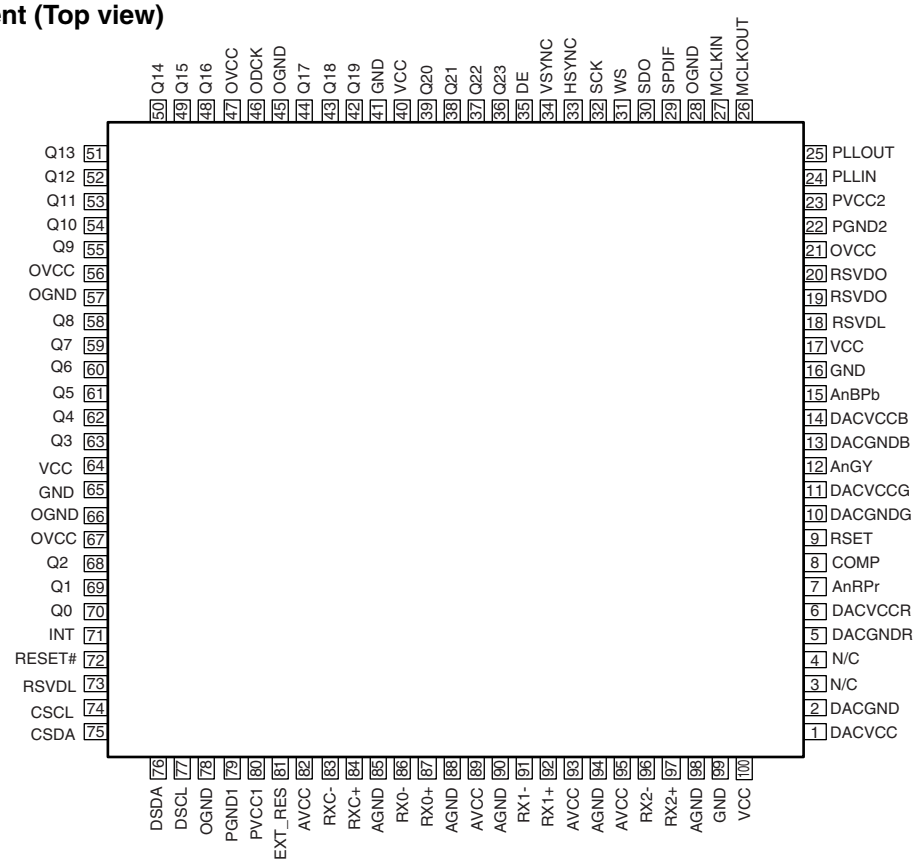
No.	Symbol	I/O	Pin Function
1	B/CbOUT	O	Amplifier output signal monitor
2	ADDRESS	I	I²C slave address setting
3	R/CrOUT	O	Amplifier output signal monitor
4	NC	–	Not used
5	NC	–	Not used
6	XPOWER SAVE	I	Power save setting
7	DGNDREG	–	Register GND
8	DVccREG	–	Register power supply
9	SDA	I	Control register data input
10	SCL	I	Control register CLK input
11	XSENABLE	I	Enable signal input for 3-wire control register
12	SEROUT	O	3-wire control register data readout
13	3WIRE/I²C	I	Selection of input between I²C bus and 3-wire bus
15	AVccADREF	–	Reference power supply for A/D converter
16, 94	AVccAD3	–	Analog power supply for A/D converter
17	VRT	O	Top reference voltage output for A/D converter
18, 92	DVccAD3	–	Digital power supply for A/D converter
19, 32, 42, 54, 65, 76, 90	DVccADTTL	–	TTL output power supply for A/D converter
20, 33, 44, 55, 67, 77, 89	DGNDADTTL	–	TTL output GND for A/D converter
21, 22, 24-28, 31	RA0 - RA7	O	Data output for R-channel port A side
23, 30, 43, 50, 59, 66, 79, 86	DGNDAD3	–	Digital GND for A/D converter
29, 80	AGNDAD3	–	Analog GND for A/D converter
34-41	RB0 - RB7	O	Data output for R-channel port B side
45-49, 51-53	BA0 - BA7	O	Data output for B-channel port A side
56-58, 60-64	BB0 - BB7	O	Data output for B-channel port B side
68-75	GA0 - GA7	O	Data output for G-channel port A side
78, 81-85, 87, 88	GB0 - GB7	O	Data output for G-channel port B side
91	DVccAD	–	Digital power supply for A/D converter
93	VRB	O	Bottom reference voltage output for A/D converter
95	AGNDADREF	–	Reference voltage GND for A/D converter
96	DVccPLLTTL	–	TTL output power supply for PLL
97	DGNDPLLTTL	–	TTL output GND for PLL
98	XCLK	O	Inverted CLK output
99	CLK	O	CLK output
100	1/2XCLK	O	Inverted 1/2CLK output
101	1/2CLK	O	1/2CLK output
103	DSYNC/DIVOUT	O	DSYNC or DIVOUT signal output
104	UNLOCK	O	Unlock signal output
105	SOGOUT	O	Output for SYNC ON GREEN
106	HOLD	I	Input for phase comparison disable signal

No.	Symbol	I/O	Pin Function
107	XTLOAD	I	Programmable counter reset setting
108	EVEN/ODD	I	Inverted pulse input of ADC sampling CLK
109	XCLKIN	I	Inverted CLK input for testing
110	CLKIN	I	CLK input for testing
111	SYNCIN1	I	Sync input 1
112	SYNCIN2	I	Sync input 2
113	CLPIN	I	Clamp pulse input
114	DVccPLL	–	Digital power supply for PLL
115	DGNDPLL	–	Digital GND for PLL
116	AVccVCO	–	Analog power supply for PLL VCO
117	AGNDVCO	–	Analog GND for PLL VCO
118	RC1	–	External pin for PLL loop filter
119	RC2	–	External pin for PLL loop filter
120	AVccIR	–	Analog power supply for IREF
121	IREF	I	Current setup
123	AGNDIR	–	Analog GND for TREF
124	G/YIN1	I	G/Y signal input 1
125	AVccAMPG	–	Power supply for G/Y amplifier block
126	G/YIN2	I	G/Y signal input 2
127	AGNDAMPG	–	GND for G/Y amplifier block
128	G/YCLP	–	Clamp capcitor for brightness
129	B/CbCLP	–	Clamp capcitor for brightness
130	R/CrCLP	–	Clamp capcitor for brightness
132	SOGIN1	I	SYNC ON GREEN signal input 1
133	B/CbIN1	I	B/Cb signal input 1
134	AVccAMPB	–	Power supply for B/Cb amplifier block
135	SOGIN2	I	SYNC ON GREEN signal input 2
136	B/CbIN2	I	B/Cb signal input 2
137	AGNDAMPB	–	GND for B/Cb amplifier block
139	R/CrIN1	I	R/Cr signal input 1
140	AVccAMPR	–	Power supply for R/Cr amplifier block
141	R/CrIN2	I	R/Cr signal input 2
142	AGNDAMPR	–	GND for R/Cr amplifier block
143	G/YOUT	O	Monitor pin for amplifier output signal
144	DAC TEST OUT	O	DAC testing output for amplifier block control register
14, 102, 122, 131, 138	DPGND	–	GND

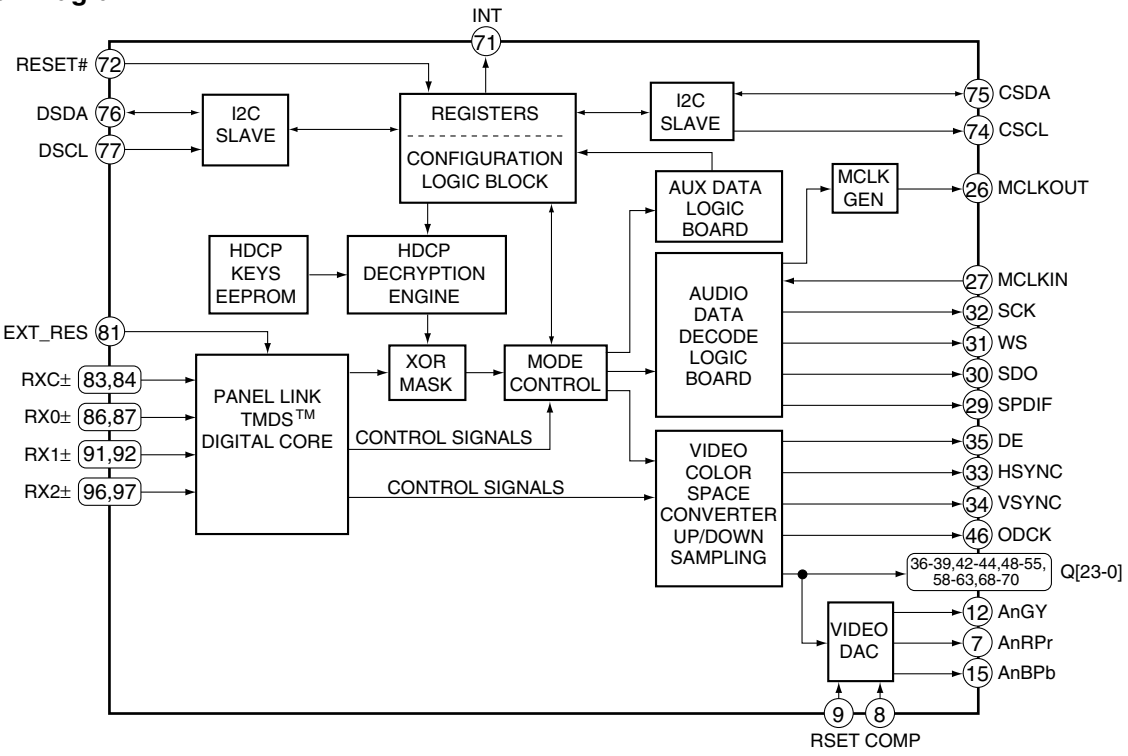
■ SII9993CTG100 (AV I/O ASSY : IC6810)

• HDCP Panel Link Receiver

● Pin Arrangement (Top view)



● Block Diagram



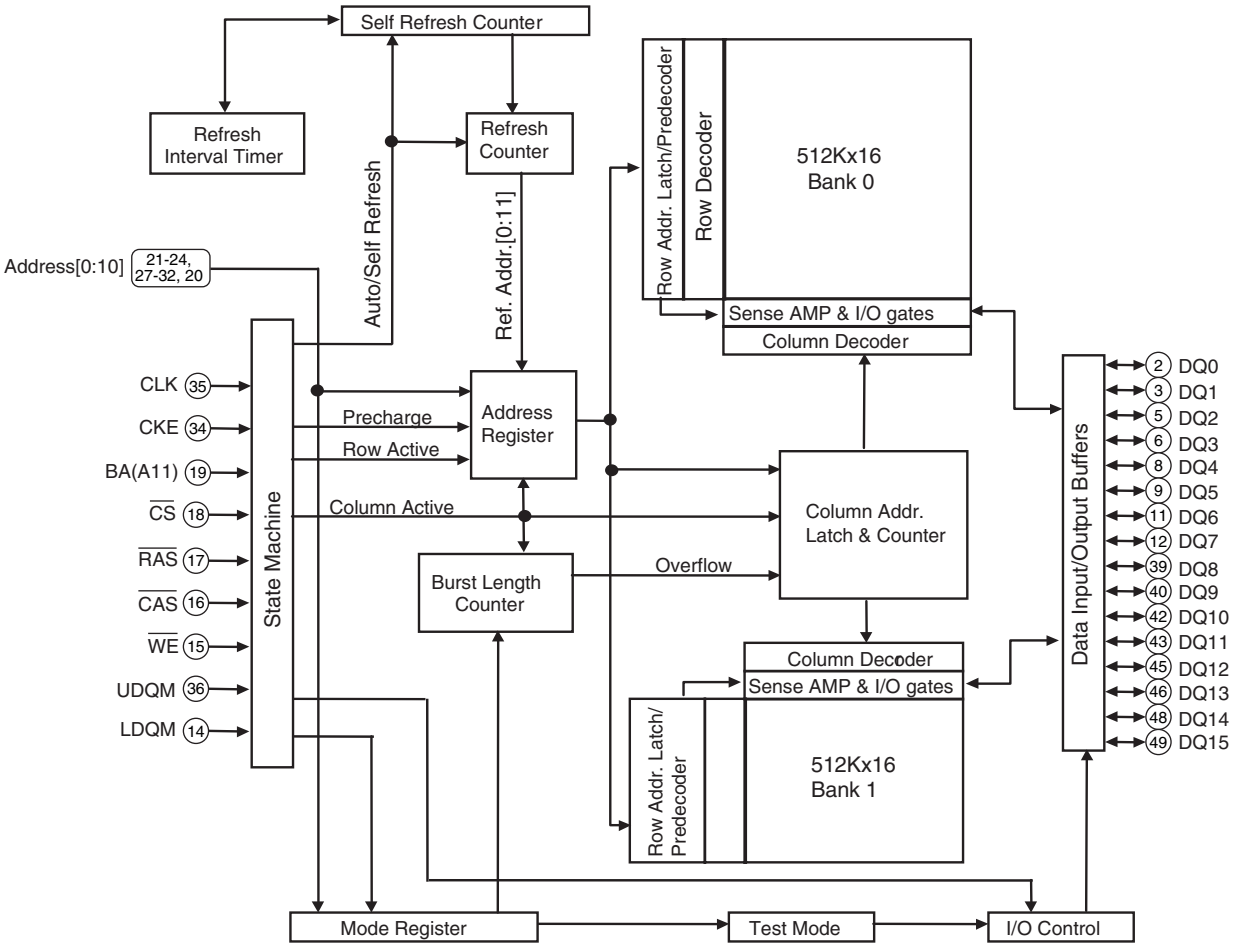
● Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	DACVCC	–	DAC power supply (3.3V)	51	Q13	O	24-bit output pixel data bus
2	DACGND	–	DAC ground	52	Q12	O	24-bit output pixel data bus
3	N/C	–	No connection	53	Q11	O	24-bit output pixel data bus
4	N/C	–	No connection	54	Q10	O	24-bit output pixel data bus
5	DACGNDR	–	DAC Red ground	55	Q9	O	24-bit output pixel data bus
6	DACVCCR	–	DAC Red power supply (3.3V)	56	OVCC	–	Output bus power supply (3.3V)
7	AnRPr	O	Red, Pr output of analog video	57	OGND	–	Output bus ground
8	COMP	I	For reference amp. correction of DAC inside	58	Q8	O	24-bit output pixel data bus
9	RSET	I	Full scale adjustment resistor input	59	Q7	O	24-bit output pixel data bus
10	DACGNDG	–	DAC Green ground	60	Q6	O	24-bit output pixel data bus
11	DACVCCG	–	DAC Green power supply (3.3V)	61	Q5	O	24-bit output pixel data bus
12	AnGY	O	Green, Y output of analog video	62	Q4	O	24-bit output pixel data bus
13	DACGNDB	–	DAC Blue ground	63	Q3	O	24-bit output pixel data bus
14	DACVCCB	–	DAC Blue power supply (3.3V)	64	VCC	–	Digital power supply (3.3V)
15	AnBPb	O	Blue, Pb output of analog video	65	GND	–	Digital ground
16	GND	–	Digital ground	66	OGND	–	Output bus ground
17	VCC	–	Digital power supply (3.3V)	67	OVCC	–	Output bus power supply (3.3V)
18	RSVDL	I	Reserved Fixed to low.	68	Q2	O	24-bit output pixel data bus
19	RSVDD	O	Reserved No connection	69	Q1	O	24-bit output pixel data bus
20	RSVDD	O	Reserved No connection	70	Q0	O	24-bit output pixel data bus
21	OVCC	–	Output bus power supply (3.3V)	71	INT	O	Interruption output
22	PGND2	–	Audio PLL ground	72	RESET#	I	Reset Activ low.
23	PVCC2	–	Audio PLL power supply (3.3V)	73	RSVDL	I	Reserved Fixed to low.
24	PLLIN	I/O	PLL filter input	74	CSCL	I	Configuration I2C clock
25	PLLOUT	I/O	PLL filter output	75	CSDA	I/O	Configuration I2C data
26	MCCLKOUT	O	Audio master clock output	76	DSDA	I/O	DDC I2C data
27	MCCLKIN	I	Reference audio master clock input	77	DSCL	I	DDC I2C clock
28	OGND	–	Output bus ground	78	OGND	–	Output bus ground
29	SPDIF	O	SPDIF audio output	79	PGND1	–	PLL ground
30	SDO	O	I2S serial data output	80	PVCC1	–	PLL power supply (3.3V)
31	WS	O	I2S word selecting output	81	EXT_RES	I	Input impedance adjustment
32	SCK	O	I2S serial clock output	82	AVCC	–	Analog power supply (3.3V)
33	HSYNC	O	Horizontal sync. control signal output	83	RXC-	I	TMDS data input
34	VSYNC	O	Vertical sync. control signal output	84	RXC+	I	TMDS data input
35	DE	O	Data enable	85	AGND	–	Analog ground
36	Q23	O	24-bit output pixel data bus	86	RX0-	I	TMDS data input
37	Q22	O	24-bit output pixel data bus	87	RX0+	I	TMDS data input
38	Q21	O	24-bit output pixel data bus	88	AGND	–	Analog ground
39	Q20	O	24-bit output pixel data bus	89	AVCC	–	Analog power supply (3.3V)
40	VCC	–	Digital power supply (3.3V)	90	AGND	–	Analog ground
41	GND	–	Digital ground	91	RX1-	I	TMDS data input
42	Q19	O	24-bit output pixel data bus	92	RX1+	I	TMDS data input
43	Q18	O	24-bit output pixel data bus	93	AVCC	–	Analog power supply (3.3V)
44	Q17	O	24-bit output pixel data bus	94	AGND	–	Analog ground
45	OGND	–	Output bus ground	95	AVCC	–	Analog power supply (3.3V)
46	ODCK	O	Data clock output	96	RX2-	I	TMDS data input
47	OVCC	–	Output bus power supply (3.3V)	97	RX2+	I	TMDS data input
48	Q16	O	24-bit output pixel data bus	98	AGND	–	Analog ground
49	Q15	O	24-bit output pixel data bus	99	GND	–	Digital ground
50	Q14	O	24-bit output pixel data bus	100	VCC	–	Digital power supply (3.3V)

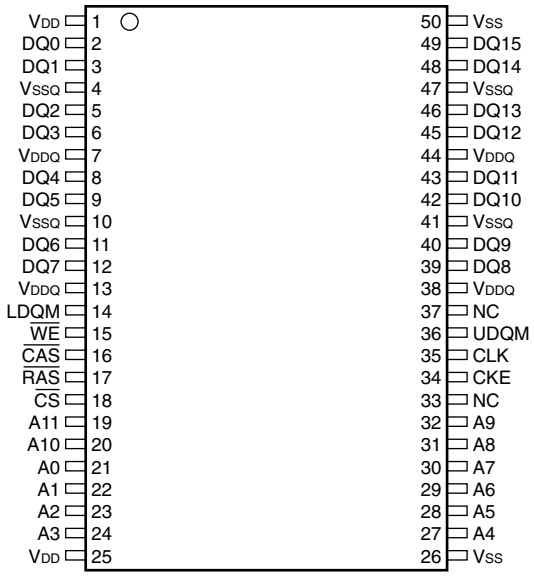
IC42S16100-7TG-K (VIDEO SLOT 2 ASSY : IC6106)

• 16M SDRAM

● Block Diagram



● Pin Arrangement



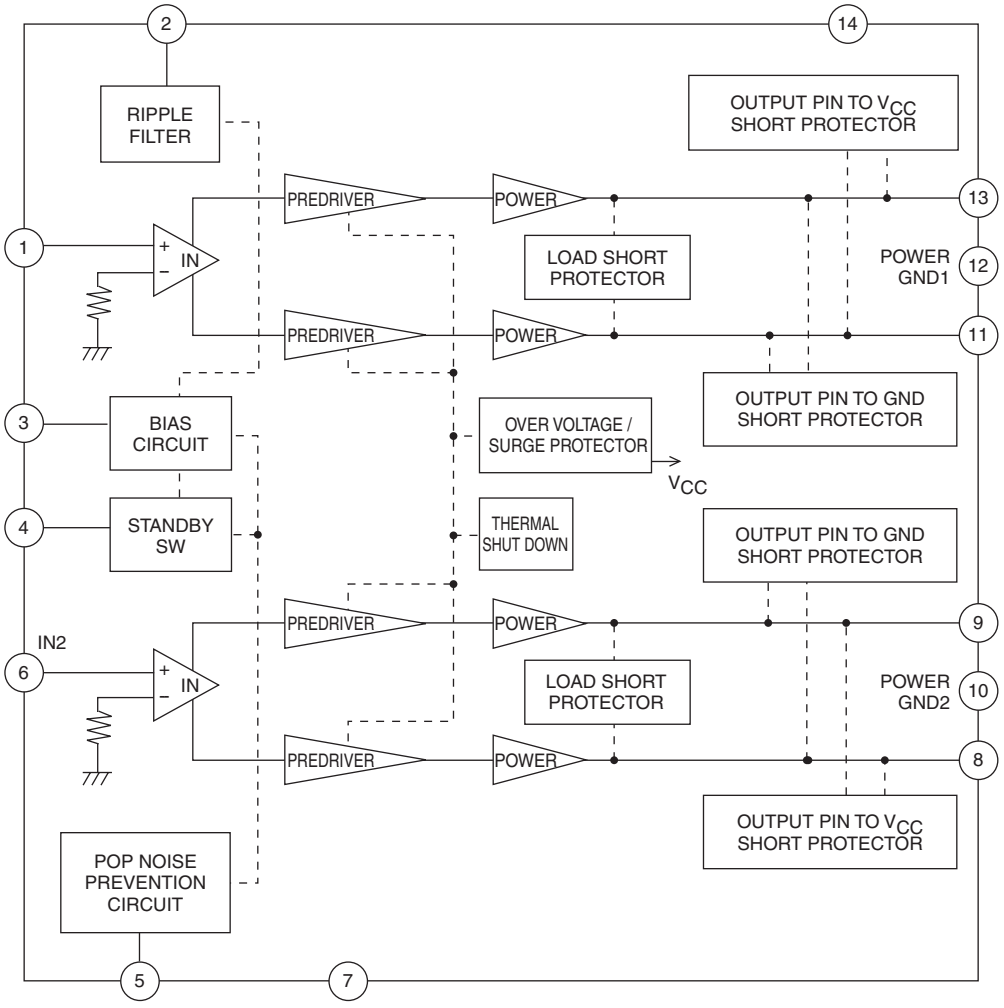
● Pin Function

No.	Pin Name	I/O	Pin Function
1	VDD	–	Power supply
2	DQ0	I/O	Data input/output
3	DQ1	I/O	Data input/output
4	VSSQ	–	Ground for DQ
5	DQ2	I/O	Data input/output
6	DQ3	I/O	Data input/output
7	VDDQ	–	Power supply for DQ
8	DQ4	I/O	Data input/output
9	DQ5	I/O	Data input/output
10	VSSQ	–	Ground for DQ
11	DQ6	I/O	Data input/output
12	DQ7	I/O	Data input/output
13	VDDQ	–	Power supply for DQ
14	LDQM	I	Data input/output mask
15	/WE	I	Write enable
16	/CAS	I	Column address strobe
17	/RAS	I	Row address strobe
18	/CS	I	Chip select input
19	A11	I	Address input
20	A10	I	Address input
21	A0	I	Address input
22	A1	I	Address input
23	A2	I	Address input
24	A3	I	Address input
25	VDD	–	Power supply
26	VSS	–	Ground
27	A4	I	Address input
28	A5	I	Address input
29	A6	I	Address input
30	A7	I	Address input
31	A8	I	Address input
32	A9	I	Address input
33	NC	–	No connection
34	CKE	I	Clock enable
35	CLK	I	System clock input
36	UDQM	I	Data input/output mask
37	NC	–	No connection
38	VDDQ	–	Power supply for DQ
39	DQ8	I/O	Data input/output
40	DQ9	I/O	Data input/output
41	VSSQ	–	Ground for DQ
42	DQ10	I/O	Data input/output
43	DQ11	I/O	Data input/output
44	VDDQ	–	Power supply for DQ
45	DQ12	I/O	Data input/output
46	DQ13	I/O	Data input/output
47	VSSQ	–	Ground for DQ
48	DQ14	I/O	Data input/output
49	DQ15	I/O	Data input/output
50	VSS	–	Ground

LA4625 (AUDIO AMP ASSY : IC5003)

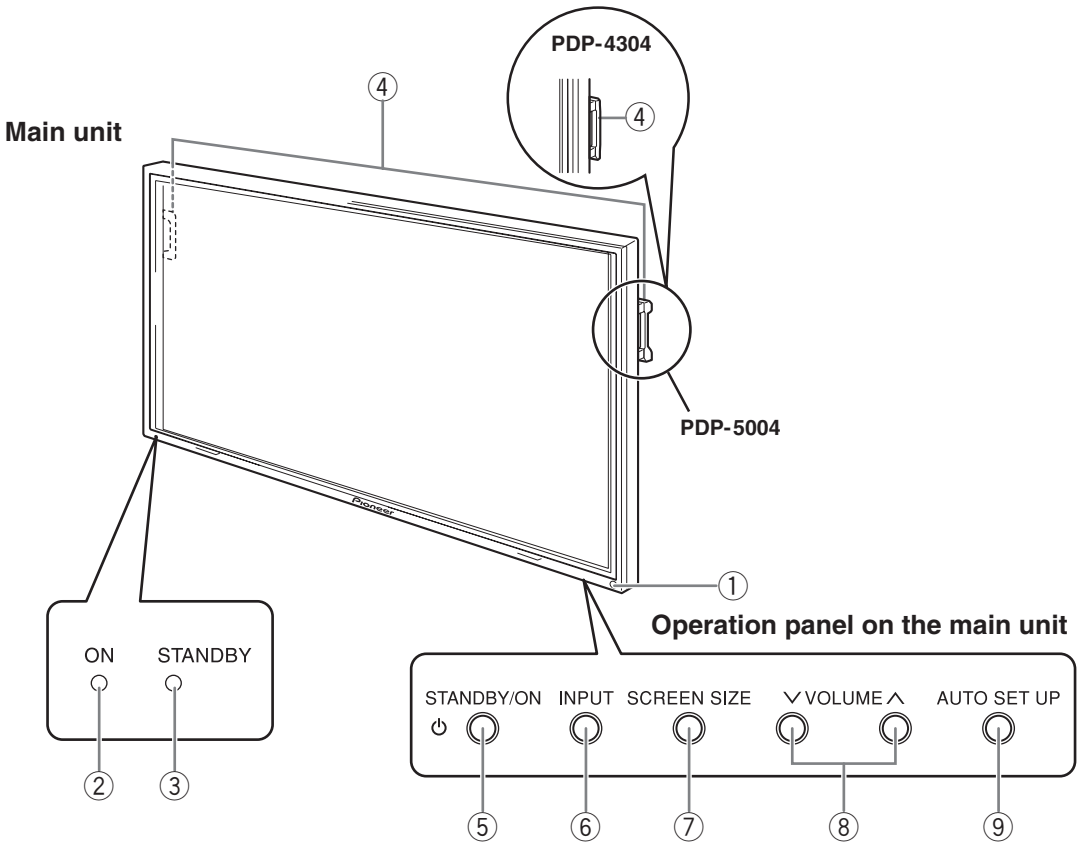
• 2ch BLT AF Power Amp. IC

● Block Diagram



8. PANEL FACILITIES

■ MAIN UNIT



Main unit

① Remot **e control sensor**
Point the remote control toward the remote sensor to operate the unit.

② **ON indicator**
Lights green when the plasma display is operating.
When flashing, the indicator is used to indicate error messages.

③ **STANDBY indicator**
Lights red when the unit is in standby mode.
When flashing, the indicator is used to indicate error messages.

④ **Handles**
The plasma displays PDP-5004 and PDP-4304 utilize differing methods of handle attachment, but the handles themselves are used in the same way.

Operation panel on the main unit

⑤ **STANDBY/ON button**
Press to put the display in operation or standby mode.

⑥ **INPUT button**
Press to select the input.

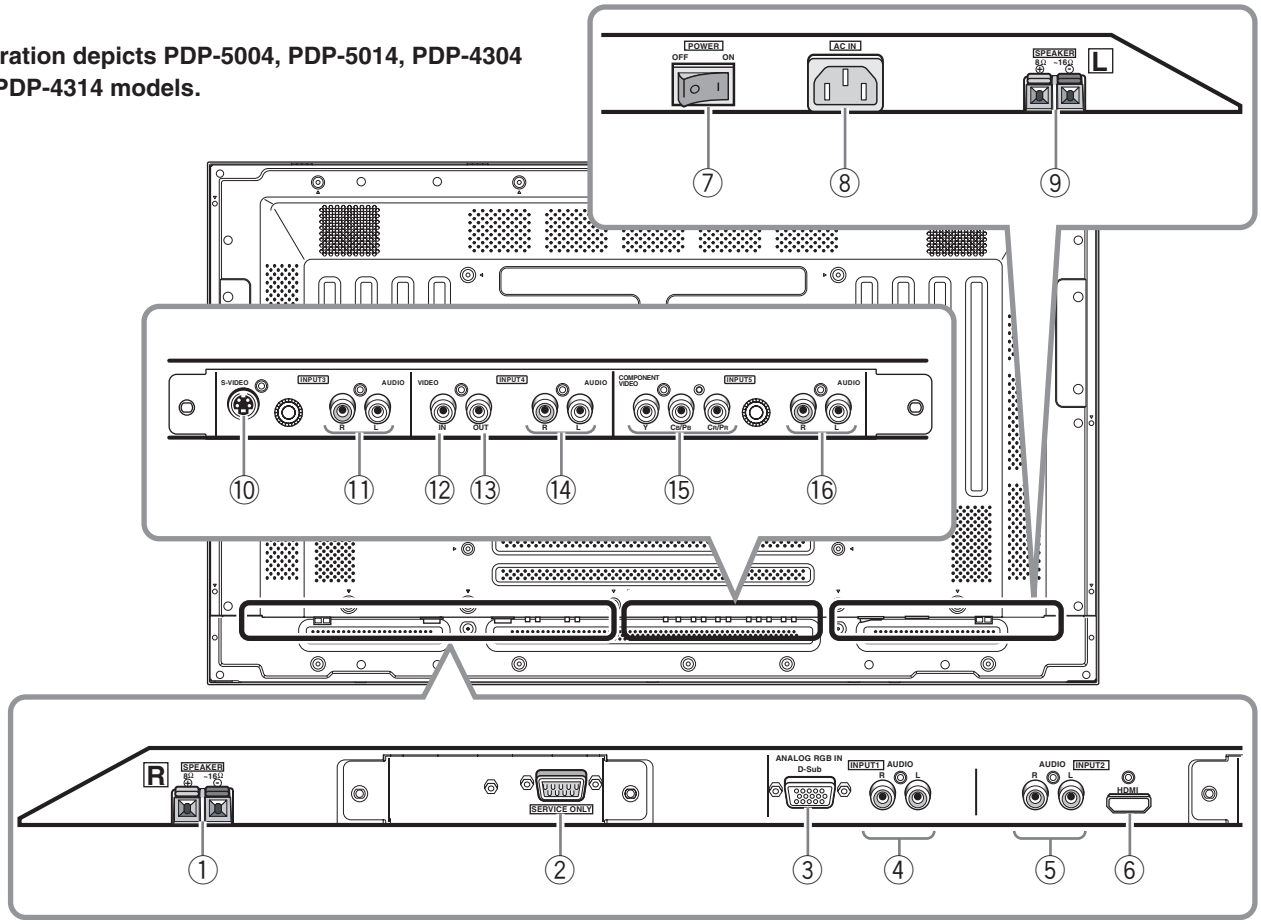
⑦ **SCREEN SIZE button**
Press to select the screen size.

⑧ **VOLUME (+/–) but tons**
When not indicated for use in onscreen menu items, these buttons are used for adjusting the sound volume.

⑨ **AUTO SET UP button**
When using computer signal input, automatically sets the [POSITION], [CLOCK] and [PHASE] to optimum values.

■ CONNECTION PANEL

Illustration depicts PDP-5004, PDP-5014, PDP-4304 and PDP-4314 models.



Plasma Display Section

The plasma display is provided with 5 video input connectors, 1 video output connector, audio input jacks and speaker terminals.
For instructions regarding connections, consult the pages noted in parentheses by each item.

① **SPEAKER (R) terminal**
For connection of an external right speaker.
Connect a speaker whose impedance is 8 –16Ω.

② **RS-232 Terminal (used in the factory setup)**

③ **ANALOG RGB IN (INPUT1) (mini D-sub 15 pin)**
For connecting components equipped with RGB outputs jacks, such as a personal computer or external RGB decoder; or components equipped with component output jacks, such as a DVD recorder.
Make sure that the connection made corresponds to the format of the signal output from the connected component.

④ **AUDIO (INPUT1) (RCA pin jack)**
Use to obtain sound when INPUT1 is selected.
Connect this jack to the audio output connector of the device connected to INPUT1 to this unit.

Note
The left audio channel (L) jack is not compatible with monaural input sources.

⑤ **AUDIO (INPUT2) (RCA Pin jacks)**
Use to obtain sound when INPUT2 (analog audio) is selected.
Connect these jacks to the audio output connectors of components connected to INPUT2.

Note
The left audio channel (L) jack is not compatible with monaural input sources.

⑥ **HDMI (INPUT2) (HDMI jack)**
For connection of components that have a digital video output terminal such as a digital set top box, DVD player, etc. compatible with HDCP. Before attempting to connect one of these devices, read its operating instructions to make sure that it can be connected.
(HDCP = High-bandwidth Digital Content Protection)
(HDMI = High Definition Multimedia Interface)

⑦ **MAIN POWER switch**
Use to switch the main power of the plasma display on and off.

⑧ **AC IN**
A power cable is furnished with the plasma display; connect one end of the power cable to this connector, and the other end to a standard AC power source.

⑨ **SPEAKER (L) terminal**
For connection of an external left speaker. Connect a speaker that has an impedance of 8 –16Ω.

⑩ **S-VIDEO (INPUT3) (S-video jack)**
For connection of components that have an S-video output jack such as a video deck, video camera, laser disc player, or DVD recorder.

⑪ **AUDIO R/L (INPUT3) (RCA Pin jacks)**
Use to obtain sound when INPUT3 is selected. Connect these jacks to the audio output connectors of components connected to INPUT3 to this unit.

⑫ **VIDEO IN (INPUT4) (RCA Pin jack)**
For connection of components that have a composite video output jack such as a video deck, video camera, laser disc player, or DVD recorder.

⑬ **VIDEO OUT (INPUT4) (RCA Pin jack)**
Use the VIDEO OUT (INPUT4) jack to output the video signal to an external monitor or other component.

Note
The video signal will not be output from the VIDEO OUT (INPUT4) jack when the main power of this display is off or in standby mode.

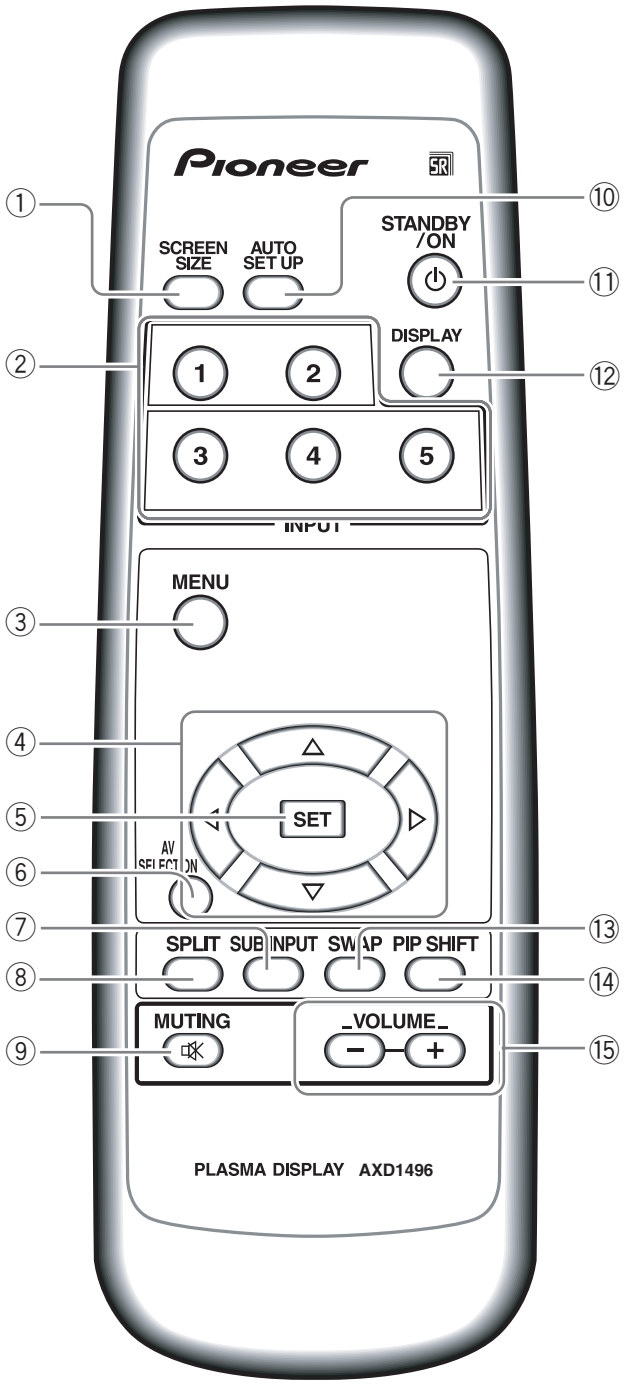
⑭ **AUDIO R/L (INPUT4) (RCA Pin jacks)**
Use to obtain sound when INPUT4 is selected. Connect these jacks to the audio output connectors of components connected to INPUT4 to this unit.

⑮ **COMPONENT VIDEO (INPUT5) (RCA Pin jacks)**
For connection of components that have component video output jacks such as a DVD recorder.

⑯ **AUDIO R/L (INPUT5) (RCA Pin jacks)**
Use to obtain sound when INPUT5 is selected. Connect these jacks to the audio output connectors of components connected to INPUT5 to this unit.

■ REMOTE CONTROL UNIT

[PDP-5004, PDP-4304]



① **SCREEN SIZE button**
Press to select the screen size.

② **INPUT buttons**
Press to select the input.

③ **MENU button**
Press to open and close the on-screen menu.

④ **ADJUST (▲/▼/►/◄) buttons**
Use to navigate menu screens and to adjust various settings on the unit.

⑤ **SET button**
Press to adjust or enter various settings on the unit.

⑥ **AV SELECTION button**
Press to switch to Picture settings.
(VIDEO mode: DYNAMIC, STANDARD, MOVIE, GAME, USER
PC mode: STANDARD, USER)

⑦ **SUB INPUT button**
During multi-screen display, use this button to change inputs to subscreens.

⑧ **SPLIT button**
Press to switch to multi-screen display.

⑨ **MUTING button**
Press to mute the volume.

⑩ **AUTO SET UP button**
When using computer signal input, automatically sets the [POSITION], [CLOCK] and [PHASE] to optimum values.

⑪ **STANDBY/ON button**
Press to put the unit in operation or standby mode.

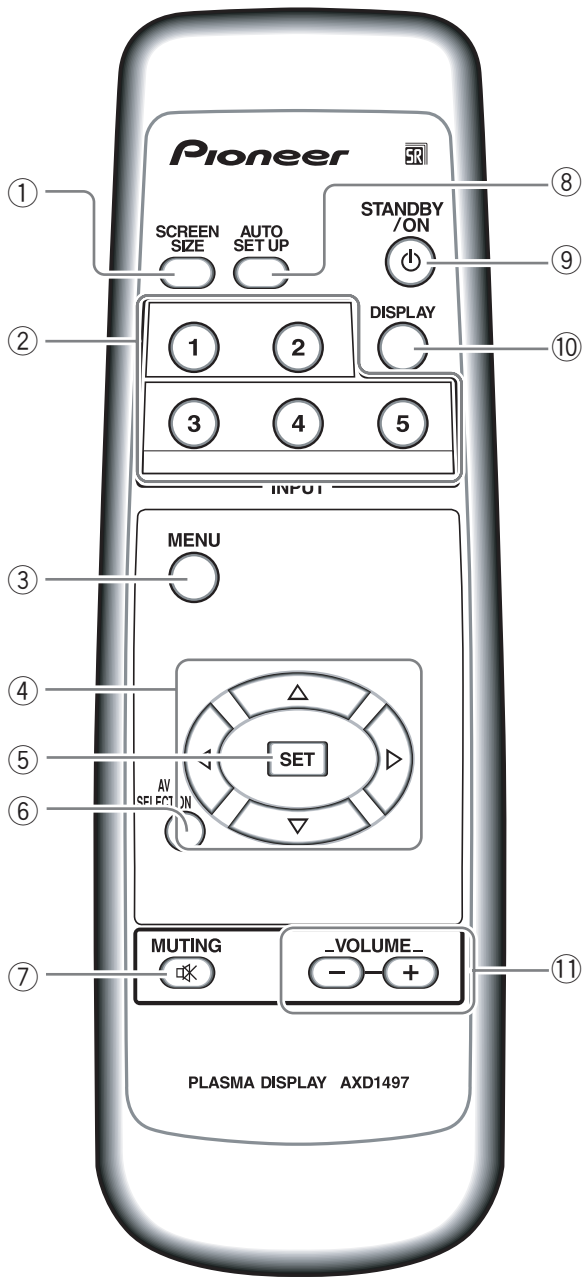
⑫ **DISPLAY button**
Press to view the unit's current input and setup mode.

⑬ **SWAP button**
During multi-screen display, use this button to switch between main screen and subscreen.

⑭ **PIP SHIFT button**
When using PinP mode with multi-screen display, use this button to move the position of subscreen.

⑮ **VOLUME (+/–) buttons**
Use to adjust the volume.

[PDP-5014, PDP-4314]



① **SCREEN SIZE button**
Press to select the screen size.

② **INPUT buttons**
Press to select the input.

③ **MENU button**
Press to open and close the on-screen menu.

④ **ADJUST (▲/▼/►/◄) buttons**
Use to navigate menu screens and to adjust various settings on the unit.

⑤ **SET button**
Press to adjust or enter various settings on the unit.

⑥ **AV SELECTION button**
Press to switch to Picture settings.
(VIDEO mode: DYNAMIC, STANDARD, MOVIE, GAME, USER
PC mode: STANDARD, USER)

⑦ **MUTING button**
Press to mute the volume.

⑧ **AUTO SET UP button**
When using computer signal input, automatically sets the [POSITION], [CLOCK] and [PHASE] to optimum values.

⑨ **STANDBY/ON button**
Press to put the unit in operation or standby mode.

⑩ **DISPLAY button**
Press to view the unit's current input and setup mode.

⑪ **VOLUME (+/–) buttons**
Use to adjust the volume.

■ INSTALLATION OF THE UNIT UNIT

Installation using the optional PIONEER stand or installation bracket

- Please be sure to request installation or mounting of this unit or the installation bracket by the dealer where purchased.
- When installing, be sure to use the bolts provided with the stand or installation bracket.
- For details concerning installation, please refer to the instruction manual provided with the st and or installation bracket.

Installation using accessories other than the PIONEER stand or installation bracket (sold separately)

- When possible, please install using parts and accessories manufactured by PIONEER. PIONEER will not be held responsible for accident or damage caused by the use of parts and accessories manufactured by other companies.
- For custom installation, please consult the dealer where the unit was purchased.

Wall-mount installation of the unit

This unit has been designed with bolt holes for wall-mount installation, etc. The installation holes that can be used are shown in the diagram below.

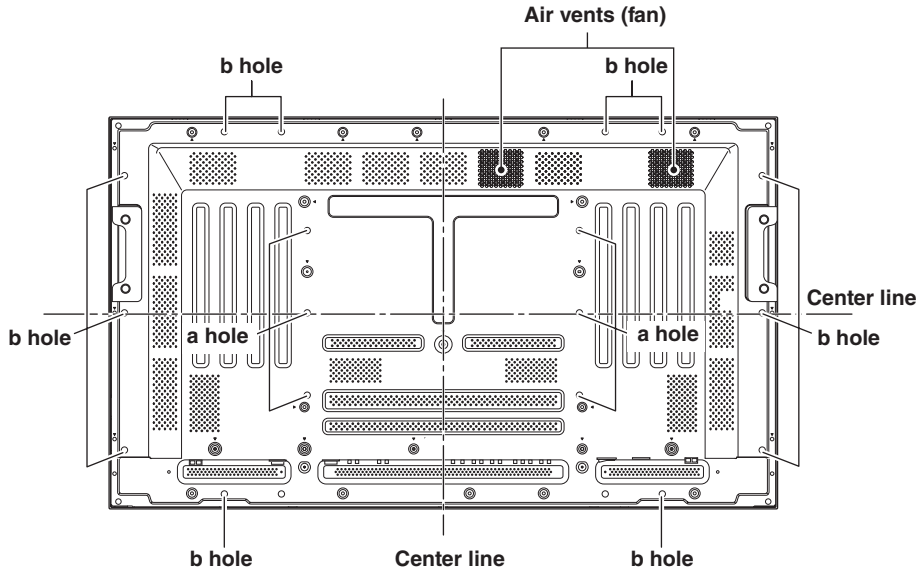
- Be sure to attach in 4 or more locations above and below, left and right of the center line.
- Use bolts that are long enough to be inserted 1/2 inch (12 mm) to 11/16 inch (18 mm) into the main unit from the attaching surface for both a holes.
  Refer to the side view diagram below.
- As this unit is constructed with glass, be sure to install it on a flat, unwarped surface.

⚠ CAUTION

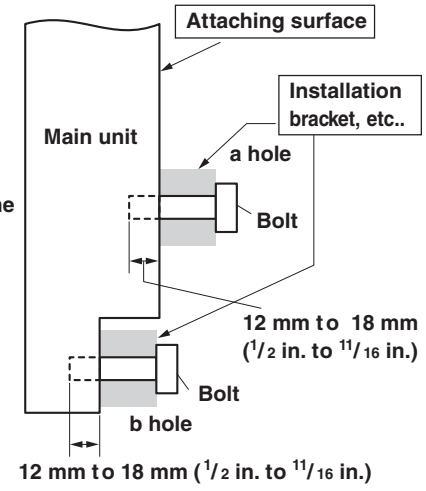
To avoid malfunction, overheating of this unit, and possible fire hazard, make sure that the vents on the main unit are not blocked when installing. Also, as hot air is expelled from the air vents, be careful of deterioration and dirt build up on rear surface wall, etc..

⚠ CAUTION

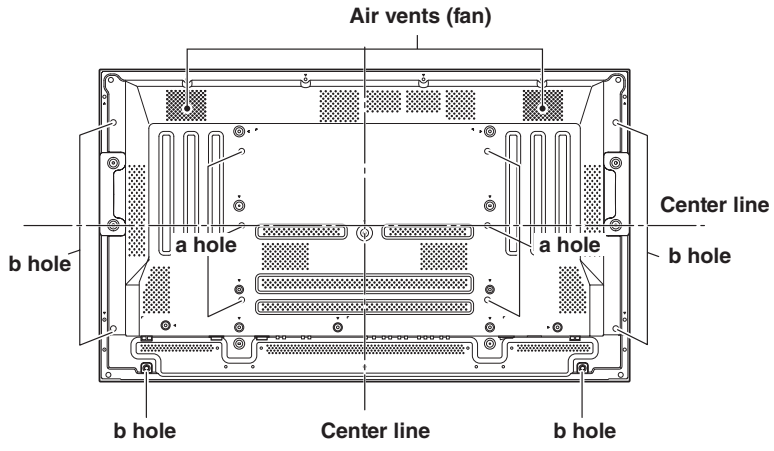
Please be sure to use an M8 (Pitch = 1.25 mm) bolt (Only this size bolt can be used).



Rear view diagram (PDP-5004/PDP-5014)



Side view diagram



Rear view diagram (PDP-4304/PDP-4314)

⚠ CAUTION

This display unit weighs at least 67 lbs (30 kg) and has little front-to-back depth, making it very unstable when stood on edge. As a result, two or more persons should cooperate when unpacking, moving, or installing the display.

⚠ CAUTION

This unit incorporates a thin design. To ensure safety if vibrated or shaken, please be sure to take measures to prevent the unit from tipping over.